

Inflation Monitor

April 2022
(Base Year: 2015-16)



State Bank of Pakistan
Statistics & DWH Department

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- Provided by Pakistan Bureau of Statistics (PBS), for domestic inflation analysis
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1. Inflation in Brief

1. National CPI Inflation on year-on-year basis increased to 13.4 percent in April 2022 from 12.7 percent in previous month. It stood at 11.1 percent in the corresponding month of last year. However, on month-on-month basis (MoM), National CPI Inflation increased to 1.6 percent in April 2022 from 0.8 percent in previous month. It was recorded 1.0 percent in the corresponding month of last year.
2. Urban CPI Inflation (year-on-year basis) increased from 11.9 percent in March 2022 to 12.2 percent in April 2022. It stood at 11.0 percent during the corresponding month of last year. Urban CPI Inflation (month-on-month basis) increased from 0.7 percent in March 2022 to 1.6 percent in April 2022. It stood at 1.3 percent in the corresponding month of last year. Seasonally adjusted month-on-month CPI Inflation recorded at 1.0 percent in April 2022 compared to 0.7 percent in the previous month.
3. Rural CPI Inflation (year-on-year basis) increased to 15.1 percent in April 2022 from 13.9 percent in previous month. It was recorded 11.3 percent during the corresponding month of last year. Rural CPI Inflation (month-on-month basis) increased to 1.6 percent in April 2022 from 1.0 percent in the previous month. Seasonally adjusted (month-on-month) CPI Inflation recorded at 1.5 percent in April 2022 compared to 1.0 percent in previous month.
4. Urban Core Inflation (trimmed) on year-on-year basis remained same at 10.5 percent in both April 2022 and March 2022. It stood at 9.8 percent during the corresponding month of last year. On month-on-month basis, Urban Core Inflation (trimmed) increased to 0.9 percent in April 2022 from 0.8 percent in previous month. It stood at 0.6 percent during the corresponding month of last year.
5. Rural Core Inflation (trimmed) on year-on-year basis increased to 12.8 percent in April 2022 from 11.7 percent in March 2022. It was recorded 10.6 percent during the corresponding month of last year. On month-on-month basis, Rural Core Inflation (trimmed) stood at 0.9 percent in April 2022 as compared to 0.8 percent in previous month and 0.2 percent during corresponding month of last year.
6. Urban Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased to 9.1 percent in April 2022 from 8.9 in previous month. It stood at 7.0 percent during corresponding month of last year. On month-on-month basis, Urban Core (NFNE) Inflation decreased to 1.1 percent in April 2022 from 1.2 percent in previous month. It stood at 0.9 percent during the corresponding month of last year.
7. Rural Core (Non-food, Non-energy (NFNE)) Inflation on year-on-year basis increased to 10.9 percent in April 2022 from 10.3 percent in previous month. It stood at 7.7 percent during the corresponding month of last year. On month-on-month basis, it increased to 1.2 percent in April 2022 from 1.1 percent in previous month. It was recorded 0.7 percent during the corresponding month of last year.
8. WPI Inflation on year-on-year basis increased from 23.8 percent in March 2022 to 28.1 percent in April 2022. It stood at 16.6 percent during the corresponding month of last year. On month-on-month basis, it decreased to 3.2 percent in April 2022 from 3.9 percent in previous month. A deflation of 0.4 percent was recorded during the corresponding month of last year.

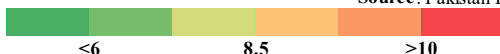
9. SPI Inflation on year-on-year basis increased to 16.5 percent in April 2022 from 15.8 percent in previous month. During corresponding month of last year, SPI Inflation stood at 17.8 percent. On month-on-month basis, SPI Inflation increased to 1.1 percent in April 2022 as compared to 0.6 percent in previous month. It was recorded 0.4 percent during the corresponding month of last year.

2. Heat-maps of CPI inflation

Heat map visually elaborates the evolution of inflation. A heat-map for National, Urban and Rural CPI inflation (YoY and MoM) and their important sub-indices for the time span of last thirteen months is presented. The observed inflation is compared with the benchmark of inflation target of 8.0 percent for FY22. Green areas indicate low inflation pressures and increasing order of red (light to dark color spectrum i.e. green to orange to brown to red) represents higher and higher inflationary pressures.

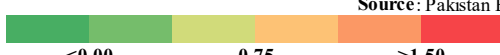
Heat-map of National, Urban and Rural CPI inflation (YoY)														
		Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Headline	National	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7	13.4
	Urban	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9	12.2
	Rural	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9	15.1
Food	Urban	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5	15.6
	Rural	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5	17.7
Core	Urban	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9	9.1
	Rural	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3	10.9

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 


Heat-map of National, Urban and Rural CPI inflation (MoM)														
		Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Headline	National	1.0	0.1	-0.3	1.3	0.6	2.1	1.9	3.0	0.0	0.4	1.2	0.8	1.6
	Urban	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7	1.6
	Rural	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6
Food	Urban	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8	2.2	1.8	3.7
	Rural	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1	0.4	2.6	2.3	2.8
Core	Urban	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1	0.8	0.8	1.2	1.1
	Rural	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1	1.2	0.9	1.1	1.2

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

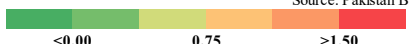
Heat-map of National CPI inflation (YoY)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
General	100.00	11.1	10.9	9.7	8.4	8.4	9.0	9.2	11.5	12.3	13.0	12.2	12.7	13.4
Food and Non-Alcoholic Beverages	34.58	15.9	14.8	10.5	8.2	10.0	10.2	8.3	10.5	10.3	12.8	14.7	15.3	17.0
Alcoholic Beverages, Tobacco	1.02	4.9	5.0	5.0	3.1	2.1	2.0	1.9	1.8	2.0	2.0	2.1	1.8	5.1
Clothing and Footwear	8.60	11.9	10.7	10.0	9.5	9.3	9.2	9.3	9.8	11.2	11.2	9.7	9.7	10.8
Housing, Water, Elec., Gas and Other Fuels	23.63	9.7	8.4	9.1	9.2	8.0	9.8	12.0	14.8	16.6	15.5	9.0	8.3	7.1
Furnishing and Household Equipment Maintenance	4.10	9.5	9.6	9.8	9.8	9.6	9.3	9.2	10.4	12.3	13.0	13.4	13.8	14.7
Health	2.79	9.0	9.0	9.4	8.6	8.5	8.0	8.0	8.5	9.4	9.2	10.1	10.0	10.4
Transport	5.91	6.5	14.0	16.4	10.5	8.1	9.1	14.4	24.4	24.1	23.1	25.0	26.3	28.3
Communication	2.21	1.5	1.5	1.6	2.8	2.8	2.8	2.8	2.5	2.5	2.6	2.5	2.6	1.6
Recreation and Culture	1.59	4.6	4.9	6.2	5.9	6.4	6.9	7.5	7.5	7.7	7.8	8.2	9.3	9.7
Education	3.79	1.6	1.6	1.8	2.0	2.9	2.6	2.2	2.4	2.8	3.2	3.4	8.3	8.4
Restaurants and Hotels	6.92	8.2	8.6	8.8	8.5	7.3	7.8	8.3	11.0	12.6	13.0	14.4	14.6	14.6
Misc. Goods and Services	4.87	10.0	10.7	10.9	9.4	5.9	7.4	8.7	10.0	10.6	10.3	10.1	12.4	12.8

Source: Pakistan Bureau of Statistics and SBP staff estimates

Key 

Heat-map of Rural CPI inflation (MoM)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
General	100.00	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6
Food and Non-Alcoholic Beverages	40.87	1.0	0.2	-0.9	1.8	0.9	4.1	2.7	3.6	-3.7	0.2	2.8	2.5	3.1
Alcoholic Beverages, Tobacco	1.28	-0.4	0.2	0.3	-0.1	0.0	0.6	0.5	0.1	0.5	0.3	0.3	0.0	2.8
Clothing and Footwear	9.48	1.0	0.5	0.3	0.4	0.1	0.4	0.6	2.6	0.9	0.8	0.6	1.1	2.3
Housing, Water, Elec., Gas and Other Fuels	18.49	0.0	-1.4	0.6	1.5	1.0	1.7	2.7	3.3	3.2	1.9	-1.4	-2.3	-0.8
Furnishing and Household Equipment Maintenance	4.10	0.9	0.6	0.7	0.7	0.6	0.7	1.0	2.0	3.1	1.3	1.3	1.7	1.6
Health	3.51	0.5	0.1	0.3	0.3	0.5	0.4	0.7	1.3	1.7	0.9	2.5	0.2	0.9
Transport	5.56	-1.2	0.1	0.9	3.9	0.8	1.0	5.2	5.8	1.3	2.0	3.9	0.0	0.2
Communication	1.99	0.4	0.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.1	0.1
Recreation and Culture	1.38	0.2	0.8	0.5	0.5	1.2	1.1	0.7	0.5	0.6	0.7	1.2	2.0	0.8
Education	2.13	1.4	0.0	0.7	0.5	0.4	0.0	0.1	0.0	0.3	0.2	0.8	1.1	1.0
Restaurants and Hotels	6.19	0.2	0.6	0.5	0.3	0.7	0.6	1.9	3.5	1.6	1.6	1.0	1.2	0.3
Misc. Goods and Services	5.02	0.2	0.5	1.1	1.2	0.1	1.3	1.9	2.0	0.9	1.0	0.8	1.4	1.0


Source: Pakistan Bureau of Statistics and SBP staff estimates



<0.00 0.75 >1.50

Heat-map of Rural CPI inflation (YoY)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Rural	100.00	11.3	10.9	9.7	8.0	8.4	8.8	8.7	10.9	11.6	12.9	13.3	13.9	15.1
Food	45.95	14.1	12.8	9.8	7.3	9.1	9.1	7.2	8.6	9.0	11.8	14.6	15.5	17.7
Non-perishable	40.16	17.2	16.9	12.2	10.3	9.9	12.3	11.2	11.7	12.8	12.8	12.4	13.7	15.8
Perishable	5.79	0.5	-8.2	-5.5	-9.7	5.4	-6.8	-12.5	-5.5	-12.0	6.6	35.8	32.8	34.4
Non Food	54.05	8.9	9.2	9.7	8.7	7.7	8.5	10.0	13.0	14.0	13.9	12.2	12.5	12.8
Energy	11.41	13.8	16.0	19.8	15.7	13.8	17.2	23.2	32.0	34.0	32.7	21.9	20.4	19.8
NFNE (Core)	42.64	7.7	7.6	7.3	6.9	6.2	6.2	6.7	8.2	8.9	9.0	9.4	10.3	10.9
HRI	8.61	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6	6.6	5.9	5.9	5.9	5.7
Core Excl HRI	34.03	8.0	7.8	7.5	7.1	6.3	6.3	6.7	8.6	9.5	9.7	10.3	11.4	12.2


Source: Pakistan Bureau of Statistics and SBP staff estimates



<6 8.5 >10

Heat-map of Urban CPI inflation (YoY)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Urban	100.00	11.0	10.8	9.6	8.7	8.3	9.1	9.6	12.0	12.7	13.0	11.5	11.9	12.2
Food	36.80	15.7	15.3	11.0	9.4	10.2	10.8	9.4	11.9	11.7	13.3	14.3	14.5	15.6
Non-perishable	32.34	19.4	19.3	13.5	12.7	12.2	15.3	13.2	15.3	15.5	14.7	11.8	13.0	14.4
Perishable	4.46	4.6	-0.2	-2.5	-8.7	1.7	-9.6	-8.9	-1.9	-8.7	6.3	34.1	28.0	25.6
Non Food	63.20	8.2	8.3	8.8	8.2	7.2	8.1	9.7	12.0	13.4	12.8	9.9	10.4	10.2
Energy	9.47	14.9	16.6	21.1	16.1	12.2	17.8	25.9	37.2	41.3	38.1	20.2	18.0	15.7
NFNE (Core)	53.73	7.0	6.8	6.7	6.9	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9	9.1
HRI	19.26	6.2	6.2	6.2	6.1	6.1	6.1	6.6	6.6	6.6	6.1	6.1	6.1	5.6
Core Excl HRI	34.47	7.5	7.2	7.0	7.3	6.4	6.5	6.8	8.1	9.2	9.3	8.7	10.5	11.0

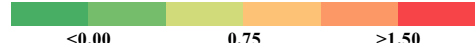
Source: Pakistan Bureau of Statistics and SBP staff estimates



<6 8.5 >10

Heat-map of Rural CPI inflation (MoM)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Rural	100.00	0.6	0.0	-0.1	1.4	0.7	2.3	2.2	3.1	-0.5	0.9	1.5	1.0	1.6
Food	45.95	0.9	0.2	-0.8	1.6	0.8	3.7	2.6	3.3	-3.1	0.4	2.6	2.3	2.8
Non-perishable	40.16	-1.2	1.8	-1.0	0.4	0.5	4.1	2.0	1.8	-0.4	1.0	1.4	2.8	0.6
Perishable	5.79	18.5	-10.2	-0.3	12.1	3.3	4.3	7.1	14.5	-21.8	-5.1	13.3	0.5	20.0
Non Food	54.05	0.3	-0.3	0.6	1.2	0.6	1.0	1.9	3.0	1.9	1.4	0.4	-0.2	0.5
Energy	11.41	-1.3	-2.4	1.1	3.1	2.2	2.9	5.2	7.0	4.4	1.9	-0.9	-4.0	-1.8
NFNE (Core)	42.64	0.7	0.3	0.4	0.7	0.2	0.5	1.0	1.8	1.1	1.2	0.9	1.1	1.2
HRI	8.61	1.2	0.0	0.0	1.2	0.0	0.0	1.3	0.0	0.0	2.1	0.0	0.0	1.0
Core Excl HRI	34.03	0.6	0.4	0.5	0.6	0.2	0.6	1.0	2.2	1.4	1.0	1.1	1.3	1.3

Source: Pakistan Bureau of Statistics and SBP staff estimates



<0.00 0.75 >1.50

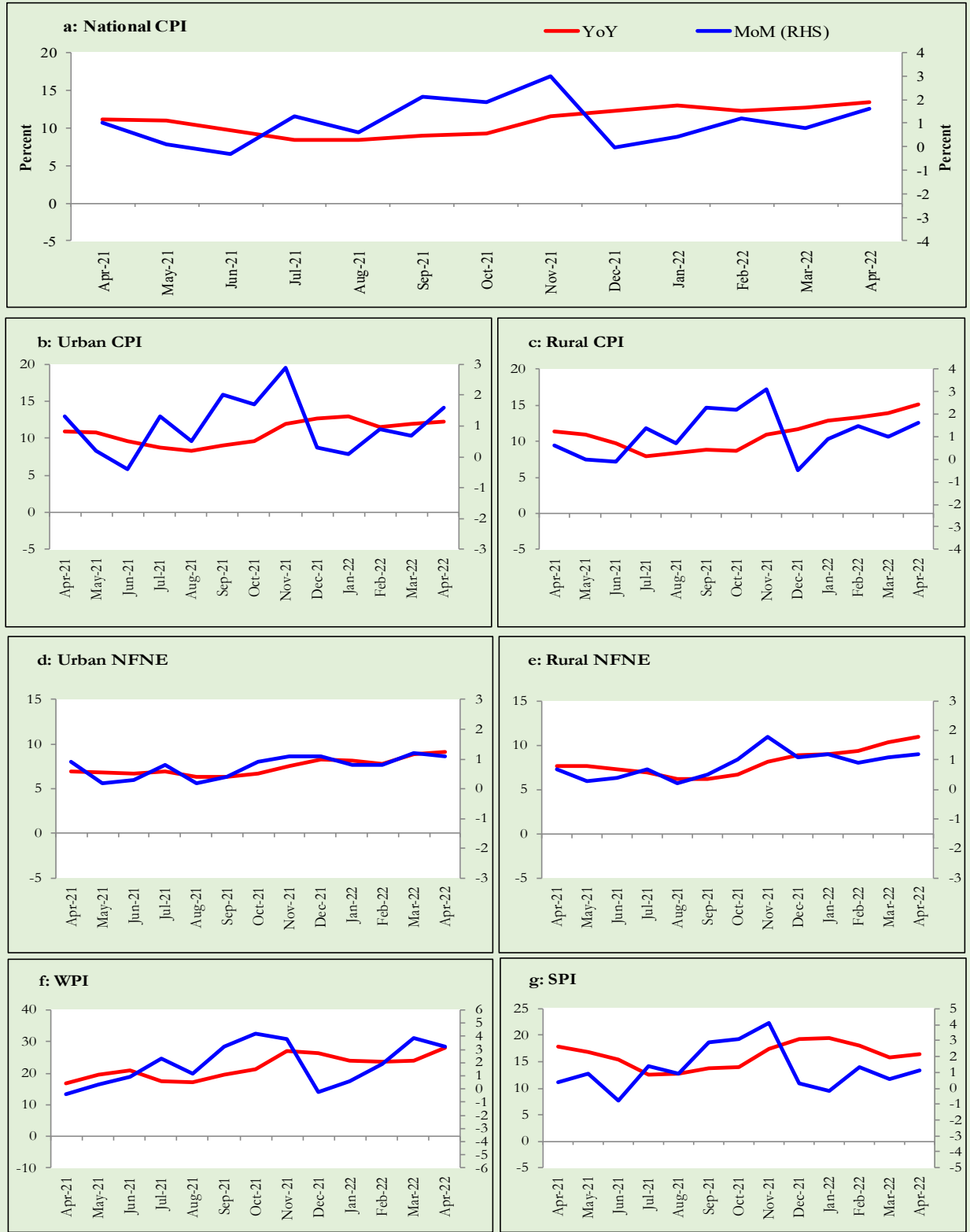
Heat-map of Urban CPI inflation (MoM)														
	Weights	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
Urban	100.00	1.3	0.2	-0.4	1.3	0.5	2.0	1.7	2.9	0.3	0.1	0.9	0.7	1.6
Food	36.80	2.7	1.1	-1.9	1.5	0.5	3.6	1.5	3.9	-2.3	-0.8	2.2	1.8	3.7
<i>Non-perishable</i>	32.34	0.5	2.5	-2.3	0.8	0.3	4.2	1.0	2.4	0.2	-0.4	0.5	2.6	1.7
<i>Perishable</i>	4.46	23.0	-7.1	-3.9	7.3	2.0	2.6	5.2	15.1	-20.2	-5.4	14.7	-1.1	20.8
Non Food	63.20	0.5	-0.3	0.5	1.1	0.5	1.1	1.8	2.2	2.0	0.6	0.2	-0.1	0.3
<i>Energy</i>	9.47	-1.5	-3.2	1.3	3.5	2.1	4.6	6.0	7.6	5.8	-0.4	-2.3	-5.9	-3.4
<i>NFNE (Core)</i>	53.73	0.9	0.2	0.3	0.8	0.2	0.4	0.9	1.1	1.1	0.8	0.8	1.2	1.1
<i>HRI</i>	19.26	1.6	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	1.5	0.0	0.0	1.1
<i>Core Excl HRI</i>	34.47	0.5	0.3	0.5	0.4	0.3	0.6	0.6	1.7	1.7	0.4	1.1	1.9	1.0

Source: Pakistan Bureau of Statistics and SBP staff estimates

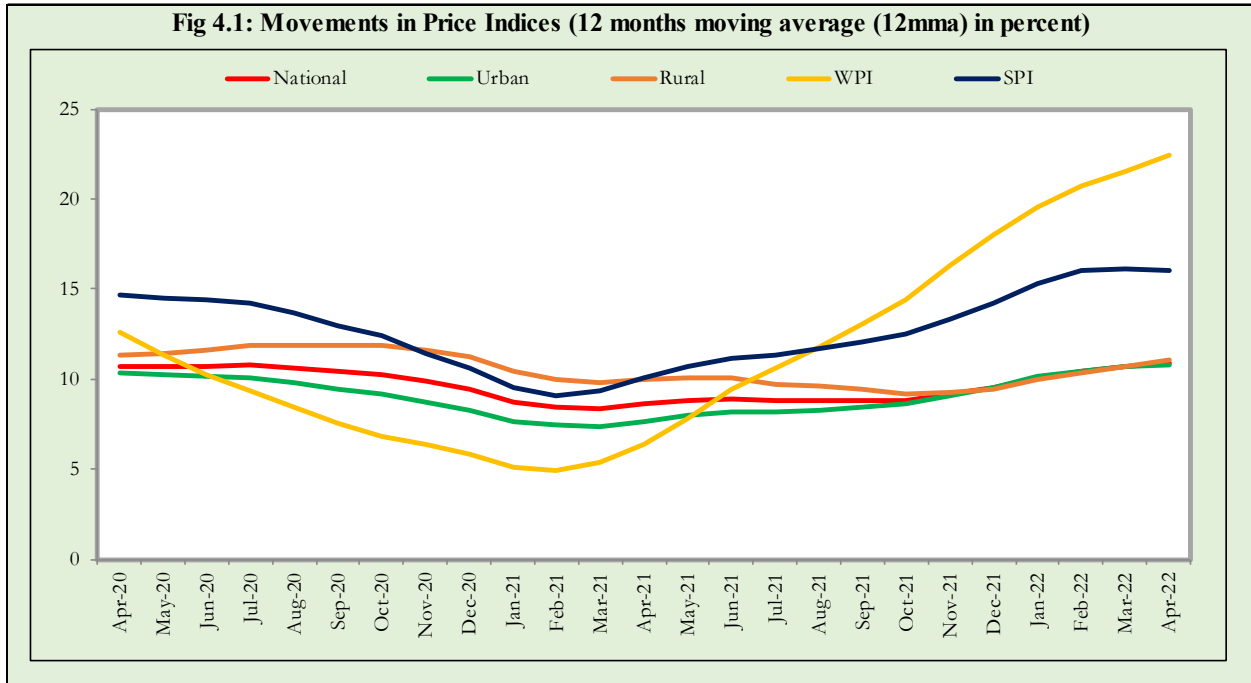
<0.00 0.75 >1.50

3. Trends in Inflation

Fig 3.1: Summary of Inflation Trends (in percent)



4. Movement in Price Indices (Moving Averages)



5. Movement in Price Indices (Month-on-Month)

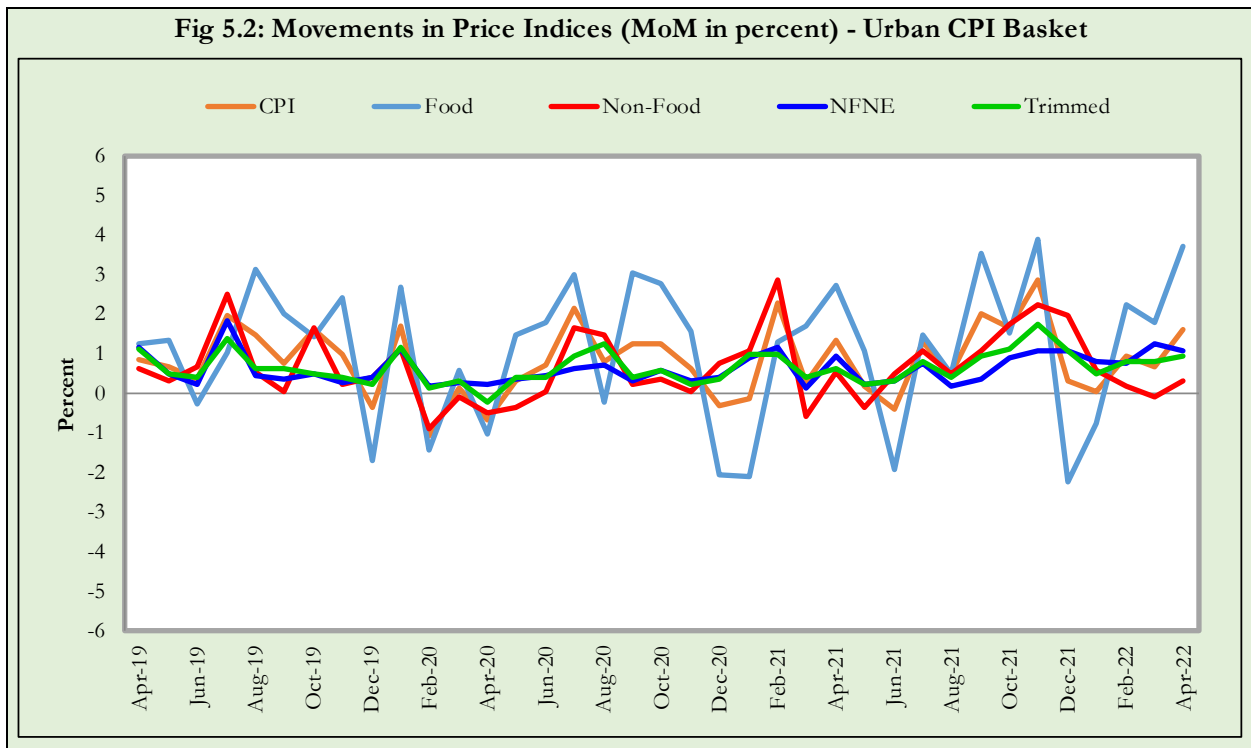
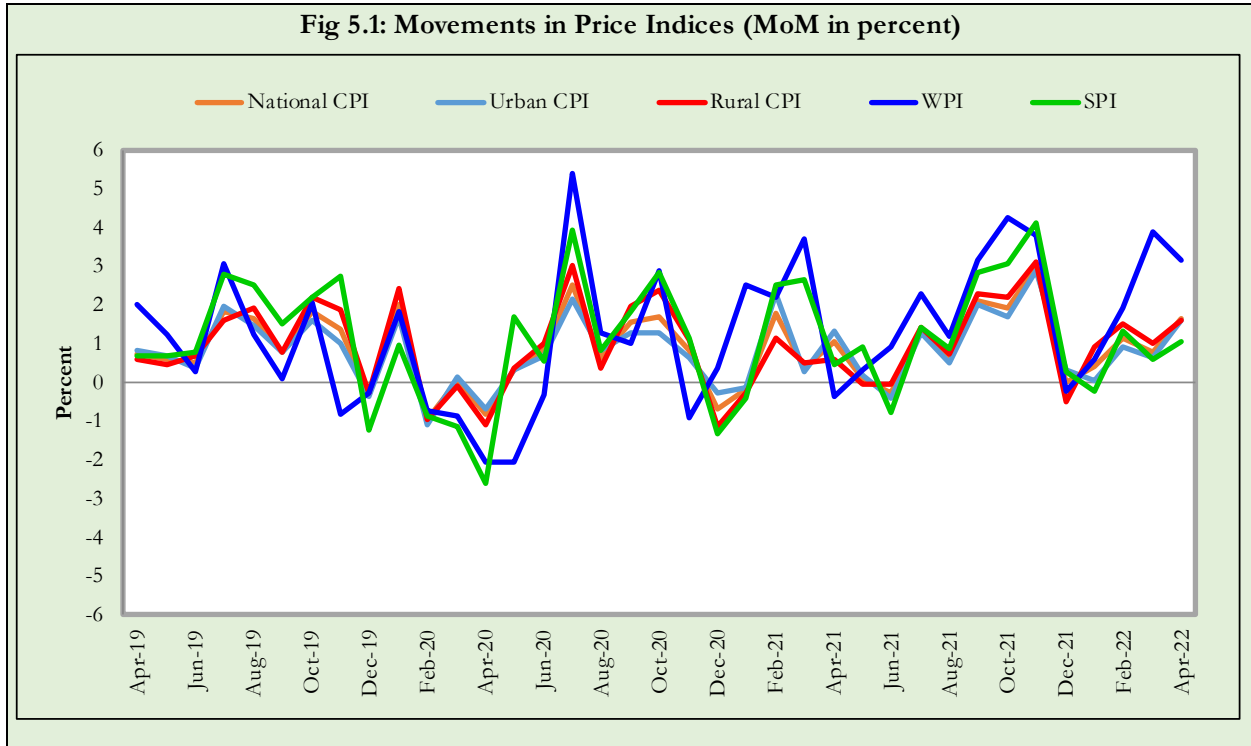
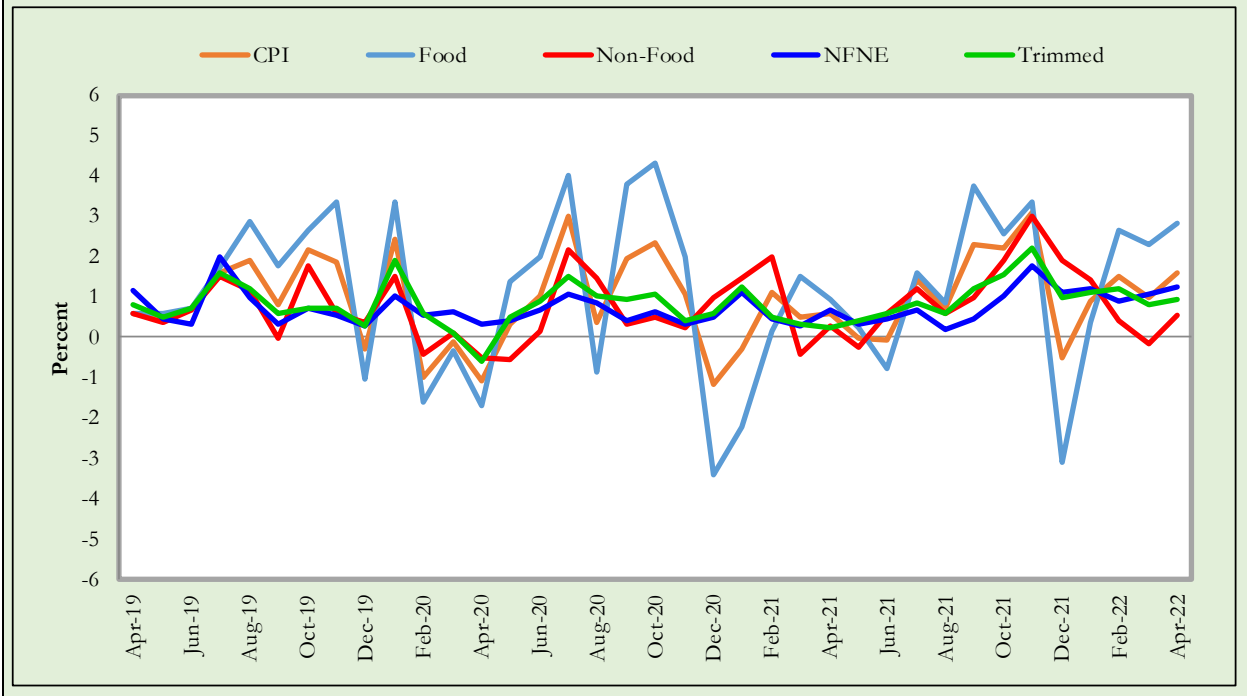
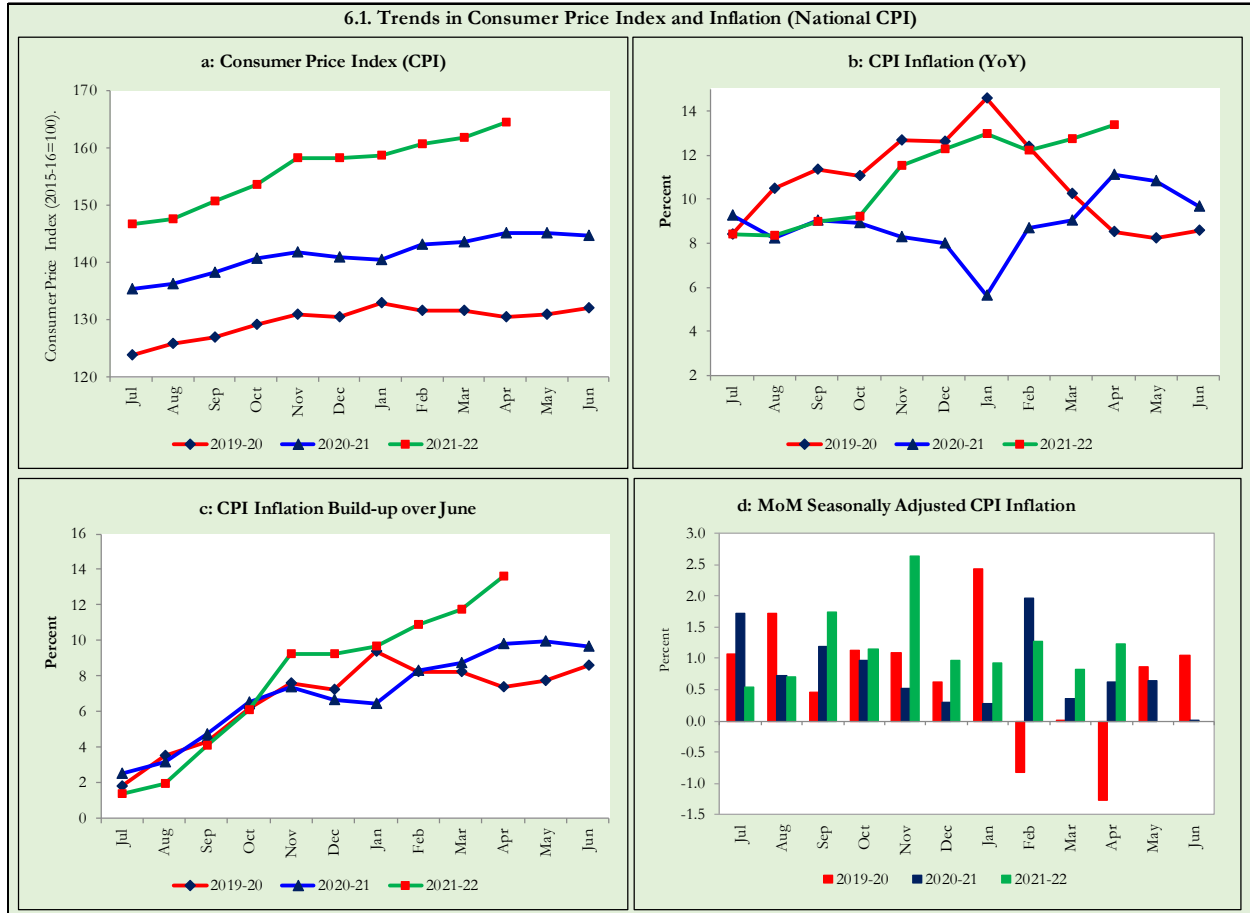


Fig 5.3: Movements in Price Indices (MoM in percent) - Rural CPI Basket

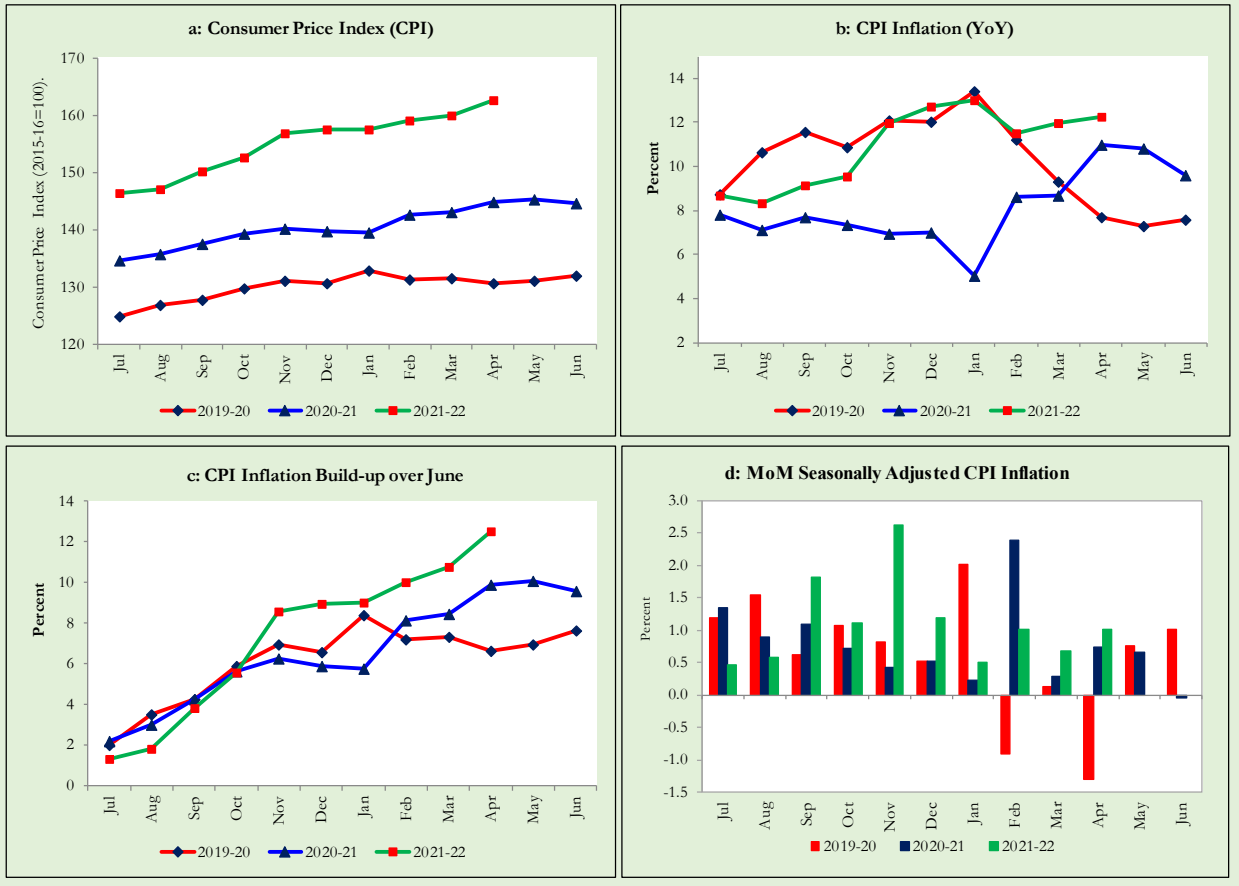


6. Trends in Consumer Price Indices and Inflation

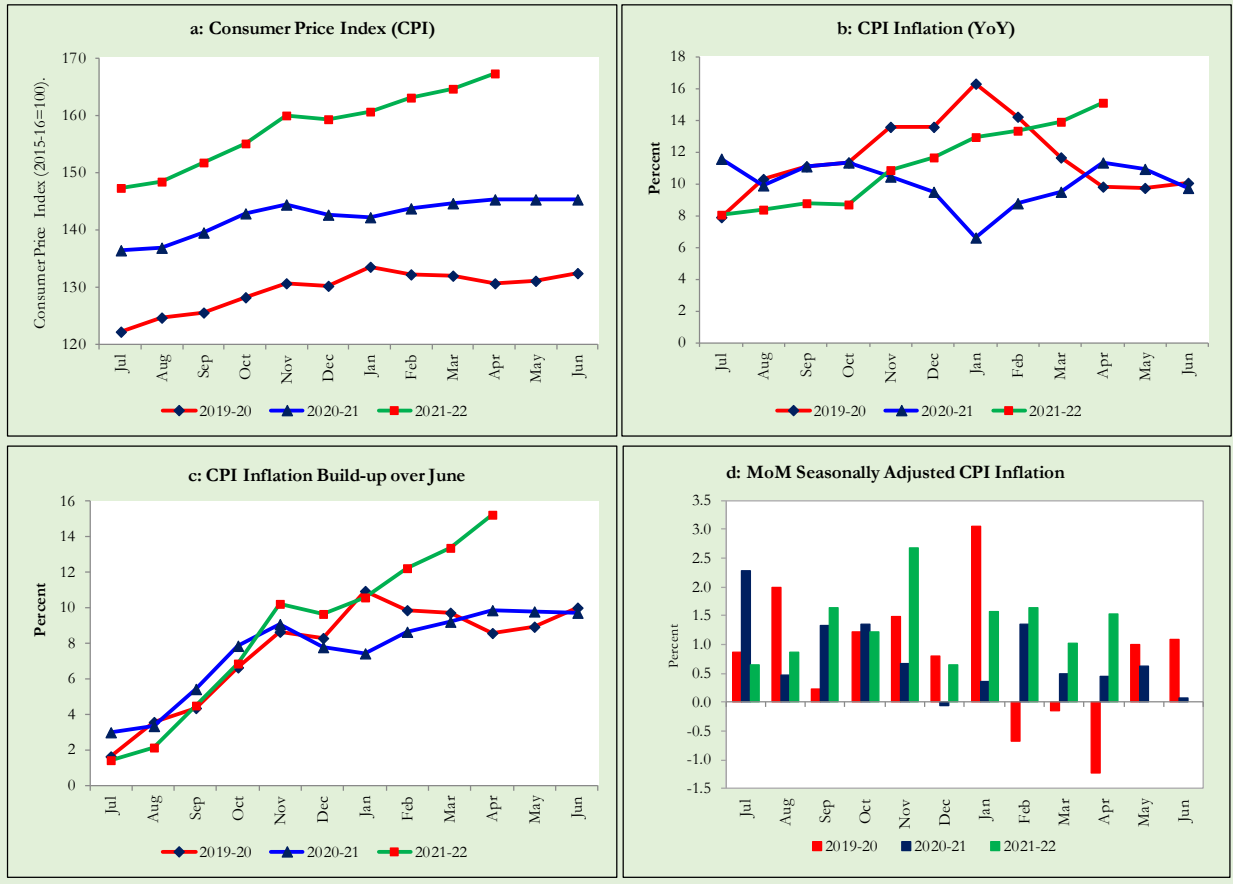
Monthly Consumer Price Indices, YoY growth rates and inflation build up over June along with seasonally adjusted (MoM) growth rates in CPI (National, Urban and Rural) is summarized in the following graphs (Figure 6.1 to 6.3).



6.2. Trends in Consumer Price Index and Inflation (Urban CPI Basket)



6.3. Trends in Consumer Price Index and Inflation (Rural CPI Basket)



7. Weighted Contribution

The weighted contribution of food group in the overall urban CPI inflation increased to 48.5 percent during April 2022 from 45.6 percent in previous month. It was 52.4 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 51.5 percent in April 2022 from 54.4 percent in previous month. Weighted Contribution of non-food was 47.6 percent during corresponding month of last year. Table 7.1 provide the historical perspective of weighted contribution of food and non-food group and their respective sub-indices (Perishable food, Non-Perishable food, Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for urban basket.

Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non-Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h
Apr-21	100.0	52.4	2.1	50.4	47.6	13.0	34.6	23.7	10.9
May-21	100.0	52.0	-0.1	52.1	48.0	13.9	34.1	23.2	10.9
Jun-21	100.0	43.0	-1.2	44.2	57.1	19.4	37.8	25.5	12.3
Jul-21	100.0	40.8	-5.2	46.0	59.2	17.3	41.9	28.7	13.2
Aug-21	100.0	45.7	1.0	44.7	54.3	14.3	40.0	26.4	13.6
Sep-21	100.0	44.7	-5.6	50.4	55.3	18.7	36.7	24.4	12.3
Oct-21	100.0	37.9	-5.1	43.0	62.1	25.4	36.7	24.0	12.8
Nov-21	100.0	38.6	-0.9	39.5	61.4	28.6	32.8	22.7	10.1
Dec-21	100.0	35.0	-3.4	38.5	65.0	30.8	34.2	24.6	9.5
Jan-22	100.0	38.2	2.0	36.2	61.8	28.4	33.4	24.5	8.9
Feb-22	100.0	46.1	10.9	35.2	54.0	18.7	35.3	25.5	9.8
Mar-22	100.0	45.6	8.9	36.7	54.4	15.3	39.1	29.7	9.4
Apr-22	100.0	48.5	9.6	38.9	51.5	12.7	38.7	30.4	8.4

Note: The weighted contribution of sub-indices may not exactly tally with the weighted contribution of overall CPI index due to rounding off

For rural basket, the weighted contribution of food group in the overall rural CPI inflation increased to 55.5 percent during April 2022 from 52.6 percent in previous month. It was 57.7 percent during corresponding month of last year. The weighted contribution of non-food group decreased to 44.5 percent in April 2022 from 47.4 percent in previous month. Weighted contribution of non-food group was 42.3 percent during corresponding month of last year. Table 7.2 provide the historical perspective of weighted contribution of food (Perishable food, Non-Perishable food) and non-food group (Energy, Core Inflation (NFNE), NFNE excluding HRI and HRI) in the overall inflation for rural basket.

Table 7.2 Weighted Contribution (in percent) to Rural CPI Inflation (YoY)

Period	Overall CPI	Food Group			Non-Food Group				
		Food	Perishable food	Non- Perishable food	Non-food	Energy	Core Inflation (NFNE)	NFNE excl HRI	HRI
		a=(b+e)	b=(c+d)	c	d	e=(f+g)	f	g=(h+i)	h
Apr-21	100.0	57.7	0.3	57.4	42.3	13.2	29.1	24.1	5.0
May-21	100.0	54.9	-4.6	59.5	45.1	15.2	29.8	24.7	5.2
Jun-21	100.0	47.4	-3.3	50.7	52.6	20.4	32.2	26.5	5.7
Jul-21	100.0	43.4	-8.0	51.4	56.6	20.4	36.2	29.9	6.3
Aug-21	100.0	51.1	3.7	47.4	48.8	17.7	31.2	25.2	6.0
Sep-21	100.0	49.5	-5.2	54.8	50.4	20.8	29.6	24.0	5.6
Oct-21	100.0	40.8	-10.9	51.7	59.2	27.7	31.5	25.3	6.2
Nov-21	100.0	39.2	-4.0	43.2	60.8	30.1	30.8	25.9	4.9
Dec-21	100.0	37.2	-6.9	44.1	62.8	31.2	31.6	27.0	4.6
Jan-22	100.0	43.2	2.7	40.5	56.8	27.7	29.1	25.3	3.8
Feb-22	100.0	51.3	12.4	38.9	48.7	19.2	29.5	25.8	3.6
Mar-22	100.0	52.6	11.2	41.5	47.4	16.7	30.7	27.2	3.5
Apr-22	100.0	55.5	12.7	42.8	44.5	14.6	29.9	26.8	3.1

Note: The weighted contribution of sub-indices may not exactly tally with the weighted contribution of overall CPI index due to rounding off

8. Inflation Diffusion Index

Inflation diffusion index (IDI) is the difference (MoM change) between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI basket for which prices have reported. IDI for urban and rural baskets (CPI, Core and twelve groups) is presented in Table 8.1(a & b) for the last thirteen months.

Table 8.1(a) Inflation Diffusion Index for Urban CPI Basket - based on MoM change													
Groups	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
General	43.3	42.1	47.2	52.2	51.7	57.6	60.1	70.2	63.2	57.6	60.1	60.1	57.3
Food & Non-Alcoholic Beverages	24.4	28.9	30.0	38.9	40.0	55.6	41.1	42.2	34.4	40.0	46.7	34.4	44.4
Alcoholic Beverages & Tobacco	33.3	66.7	33.3	0.0	0.0	33.3	33.3	33.3	33.3	66.7	33.3	33.3	66.7
Clothing & Footwear	67.5	55.0	47.5	47.5	45.0	50.0	55.0	80.0	85.0	77.5	77.5	70.0	67.5
Housing, Water, Elect, Gas & other Fuels	20.7	-6.9	27.6	58.6	41.4	58.6	72.4	72.4	69.0	13.8	3.4	10.3	17.2
Furnishing & Household Equip. Maintenance etc.	73.8	81.0	71.4	83.3	78.6	83.3	88.1	90.5	88.1	88.1	90.5	90.5	90.5
Health	77.4	61.3	64.5	54.8	74.2	54.8	51.6	64.5	90.3	71.0	87.1	77.4	74.2
Transport	18.8	25.0	31.3	37.5	46.9	40.6	50.0	93.8	53.1	62.5	62.5	59.4	40.6
Communication	40.0	0.0	20.0	60.0	20.0	20.0	20.0	0.0	20.0	40.0	20.0	20.0	20.0
Recreation & Culture	12.0	24.0	64.0	68.0	56.0	48.0	72.0	68.0	24.0	36.0	36.0	68.0	44.0
Education	31.3	0.0	25.0	25.0	25.0	25.0	56.3	81.3	68.8	31.3	37.5	75.0	43.8
Restaurant & Hotels	57.1	85.7	71.4	71.4	57.1	64.3	85.7	85.7	100.0	78.6	92.9	78.6	78.6
Miscellaneous	65.5	79.3	75.9	58.6	69.0	89.7	82.8	96.6	86.2	89.7	86.2	100.0	89.7
NFNE	57.0	51.1	54.9	57.4	56.2	59.1	66.0	80.9	75.3	67.2	69.4	76.6	67.2

Groups	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
General	35.2	32.0	43.9	44.3	41.0	54.1	66.8	61.9	56.1	57.4	59.4	52.0	54.9
Food & Non-Alcoholic Beverages	15.2	13.9	20.3	29.1	27.8	41.8	49.4	29.1	21.5	44.3	45.6	41.8	32.9
Alcoholic Beverages & Tobacco	40.0	60.0	60.0	-20.0	0.0	40.0	80.0	40.0	80.0	60.0	100.0	0.0	80.0
Clothing & Footwear	55.6	74.1	44.4	55.6	25.9	74.1	81.5	96.3	96.3	70.4	92.6	74.1	92.6
Housing, Water, Elect, Gas & other Fuels	17.4	-13.0	39.1	73.9	60.9	65.2	91.3	87.0	73.9	17.4	4.3	0.0	26.1
Furnishing & Household Equip. Maintenance etc.	61.5	61.5	76.9	80.8	61.5	57.7	84.6	88.5	96.2	92.3	92.3	84.6	80.8
Health	64.3	42.9	78.6	14.3	64.3	42.9	57.1	71.4	78.6	64.3	78.6	42.9	71.4
Transport	18.8	37.5	68.8	62.5	43.8	62.5	68.8	81.3	43.8	62.5	62.5	37.5	50.0
Communication	20.0	0.0	20.0	40.0	20.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0	20.0
Recreation & Culture	30.8	23.1	38.5	30.8	53.8	53.8	61.5	53.8	15.4	38.5	53.8	69.2	30.8
Education	80.0	0.0	60.0	80.0	60.0	0.0	20.0	0.0	20.0	60.0	80.0	80.0	100.0
Restaurant & Hotels	42.9	57.1	28.6	28.6	28.6	64.3	78.6	85.7	85.7	78.6	57.1	78.6	57.1
Miscellaneous	58.8	47.1	70.6	41.2	58.8	88.2	88.2	88.2	82.4	94.1	76.5	88.2	94.1
NFNE	55.9	46.3	59.6	53.7	47.8	57.4	71.3	75.0	72.1	67.6	71.3	66.9	74.3

9. Domestic Commodity Prices

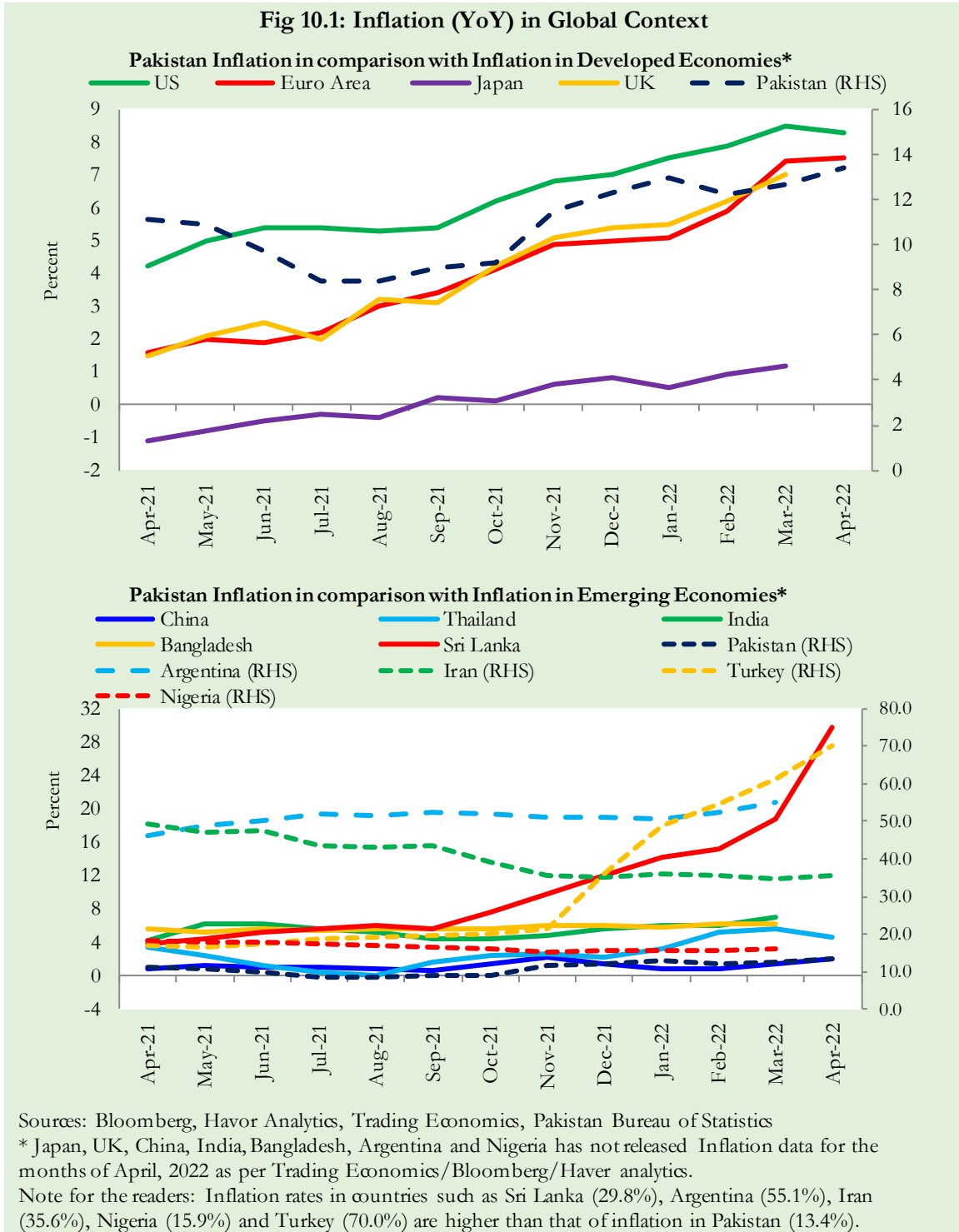
Inflation in domestic food commodities (YoY and MoM in percent) for selected essential food items covering both urban and rural CPI baskets is given in table 9.1.

S. No	Item	Unit	Urban CPI		Rural CPI	
			YoY	MoM	YoY	MoM
1	Wheat	10 Kg	27.0	-9.1	24.5	-10.2
2	Wheat Flour Bag	20 Kg	12.2	-1.0	16.9	-1.3
3	Rice Basmati Broken (Superior/Average Quality) *	1 Kg	0.6	-1.2	14.4	1.1
4	Beef with Bone (Average Quality)	1 Kg	9.2	1.7	10.8	1.6
5	Mutton (Average Quality)	1 Kg	11.2	1.6	10.9	1.6
6	Chicken Farm Broiler (Live)	1 Kg	93.1	7.3	85.1	-1.1
7	Milk Fresh (Un-Boiled)	1 Liter	21.6	0.7	13.5	0.3
8	Eggs Farm	Dozen	42.4	-0.8	46.1	0.8
9	Vegetable Ghee Dalda/Habib Or Other Superior Quality 1 Kg Pouch	Each	22.9	2.3	22.0	2.1
10	Pulse Masoor (Washed)	1 Kg	-10.2	-0.3	-2.3	-2.6
11	Pulse Moong (Washed)	1 Kg	-16.6	-1.6	-14.7	-1.7
12	Pulse Mash (Washed)	1 Kg	5.7	0.8	7.6	0.0
13	Pulse Gram	1 Kg	-7.1	-0.7	-3.2	-0.4
14	Potatoes	1 Kg	9.6	16.4	12.3	12.4
15	Onions	1 Kg	-39.6	-8.3	-43.5	-14.5
16	Tomatoes	1 Kg	81.5	67.7	60.0	55.5
17	Sugar Refined	1 Kg	18.2	-1.8	16.5	-3.1
18	Garlic (Lehsun)	1 Kg	-36.4	-14.8	-28.9	-10.6
19	Ginger (Adrak)	500 Gm	6.7	17.2	3.8	14.3
20	Tea Lipton Yellow Label 190 Gm Packet	Each	0.1	0.0	0.2	0.0

*Superior Quality for Urban CPI Basket and Average Quality for Rural CPI Basket

10. Inflation in Global Context

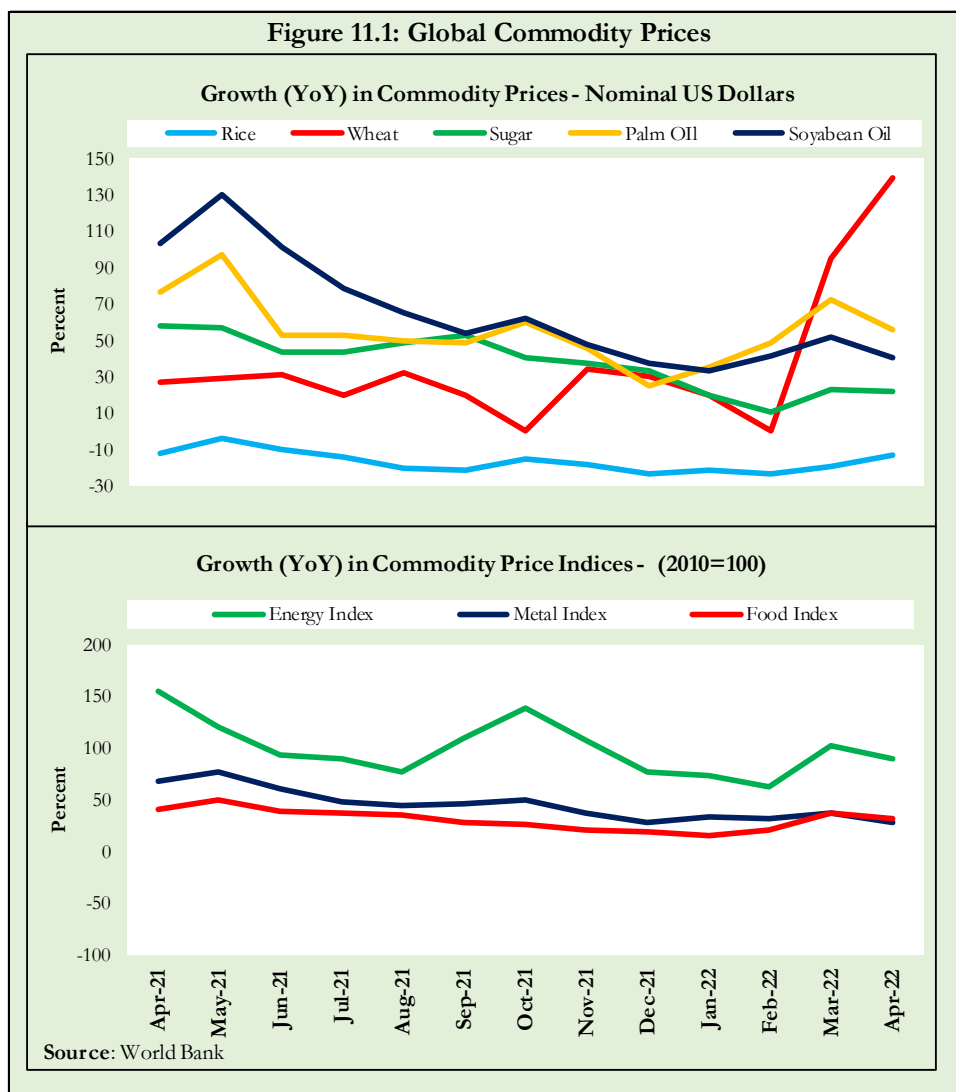
In global context, Pakistan’s inflation in comparison with inflation in selected developed and emerging economies is given in figure 10.1.



11. Global Commodity Prices

Global commodity prices and various group indices have a relation with domestic inflation. In this context, changes in major global commodity prices and indices along with price trends are given in table 11.1 and figure 11.1.

Item/ Group	Apr-21		Mar-22		Apr-22	
	YoY	MoM	YoY	MoM	YoY	MoM
Food	40.0	3.9	36.5	11.3	32.6	1.0
Metals	68.6	4.1	37.5	7.9	28.7	-2.5
Energy	155.4	0.0	102.1	24.3	89.7	-6.1
Agricultural	30.6	2.4	28.0	7.0	26.5	1.3
Cotton	42.8	-0.8	54.3	2.0	71.2	10.1



12. Seasonal Adjustment in CPI

Seasonal adjustment is the process of estimating and removing the seasonal effects from a time series after decomposing it into seasonal, trend, cycle and irregular components. The purpose is to identify the different components of the time series and thus provide a better understanding of its underlying behavior. Seasonally adjusted changes are usually preferred for analyzing general price trends in the economy because these eliminate the effect of changes that normally occur at the same time and in about the same magnitude every year. Various statistical methods can be used to decompose a time series into its constituent components. The State Bank of Pakistan uses X-12- ARIMA Seasonal Adjustment Method for this purpose.

The changes in consumer prices are normally reported in terms of year-on-year and month-on-month basis. Seasonal adjustment is particularly useful for analyzing month-on-month changes. The monthly data series of Consumer Price Indices (National CPI, Urban CPI and Rural CPI) from July 2008 to April 2022 has been used for seasonal adjustment analysis. The seasonal analysis is carried out without taking trading-day or Islamic calendar month's effects.

Figure 12.1 reveals that seasonality in all CPI series has been increasing over the period. Average seasonal factors reveal strong seasonality during the calendar year. There is an upward seasonality during the months from July to March and downward seasonality in the remaining months of the year. Upward and downward seasonality is above and below the trend line respectively. It is important to note that seasonal factors are estimate on historical data and that the future data may not necessarily show the same seasonal pattern.

Fig. 12.1 (a): Seasonal Factor of National CPI

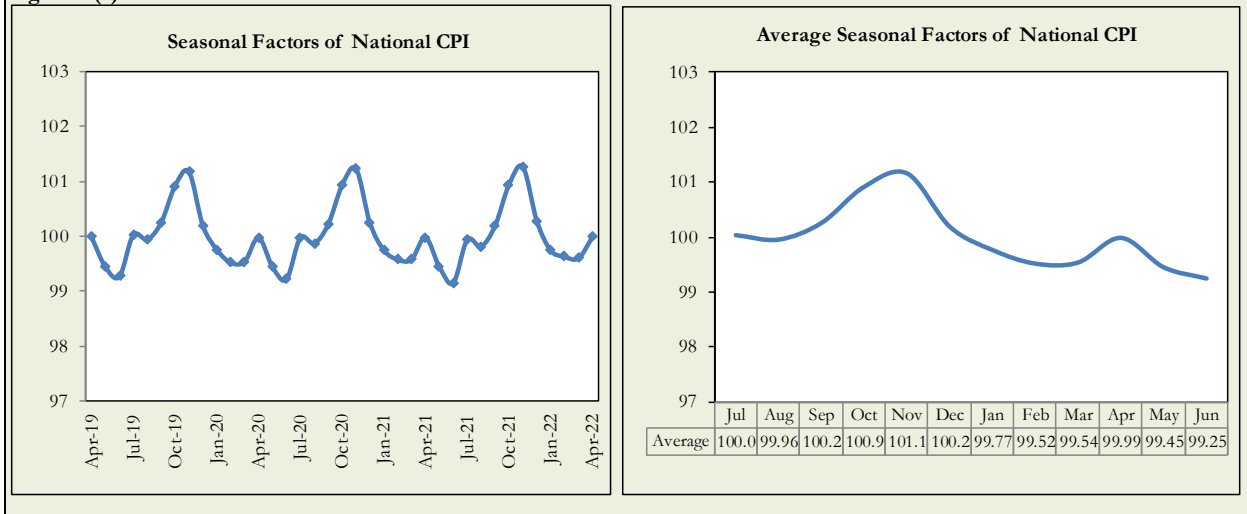


Fig. 12.1 (b): Seasonal Factor of Urban CPI

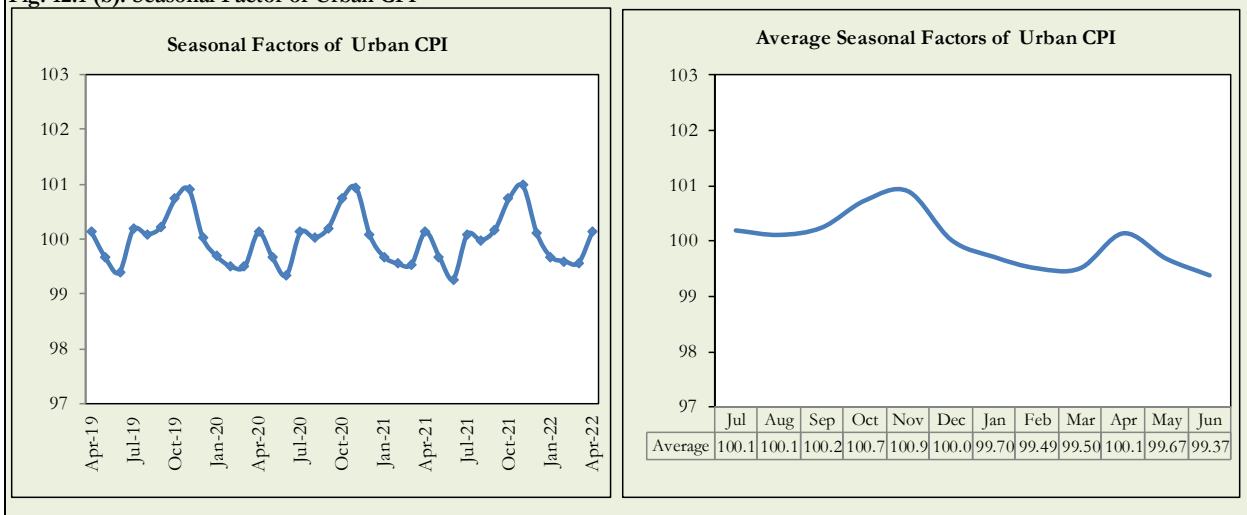
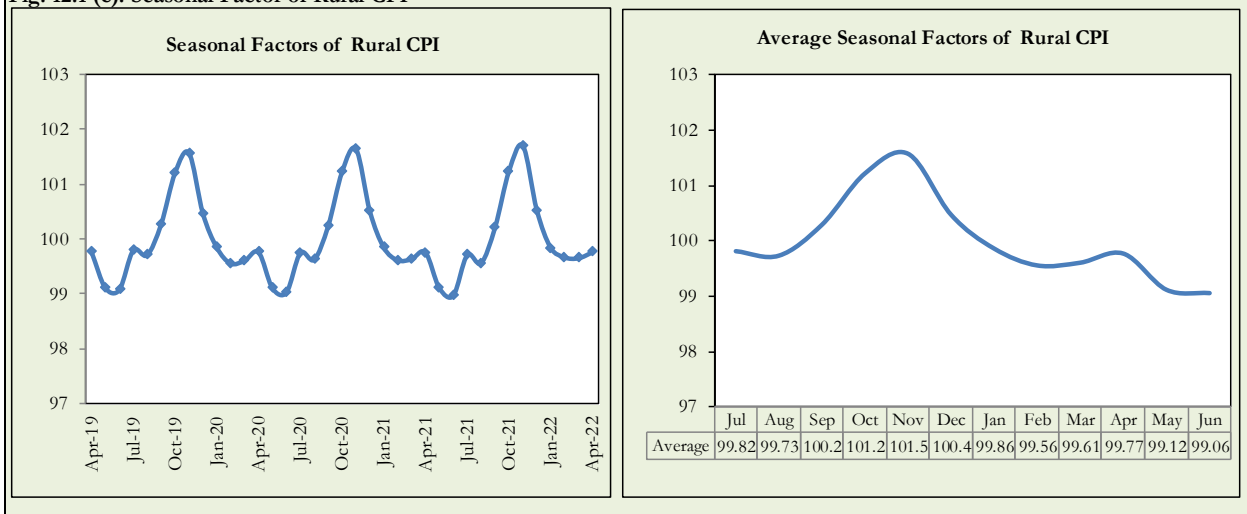
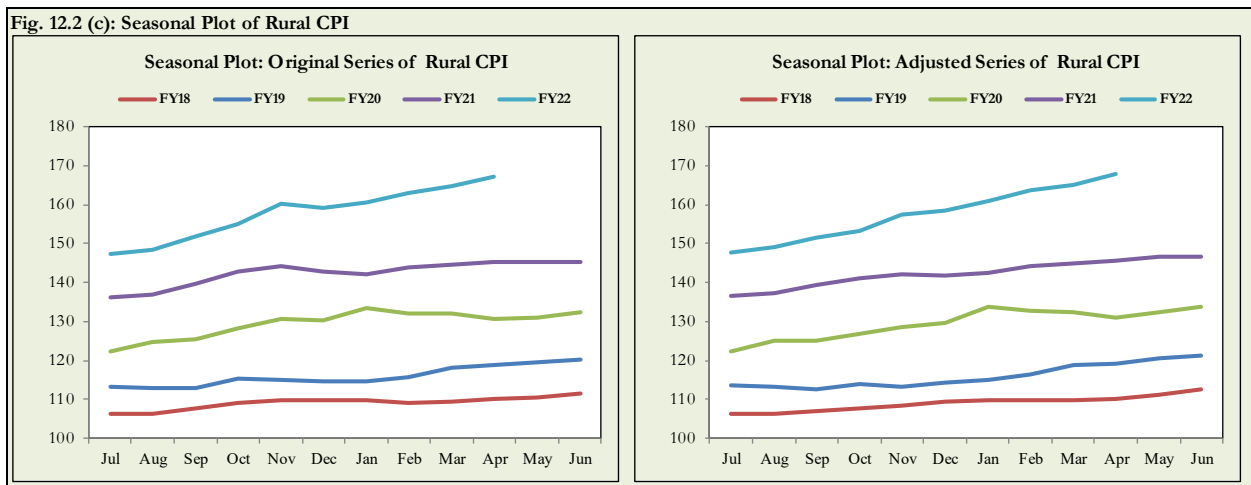
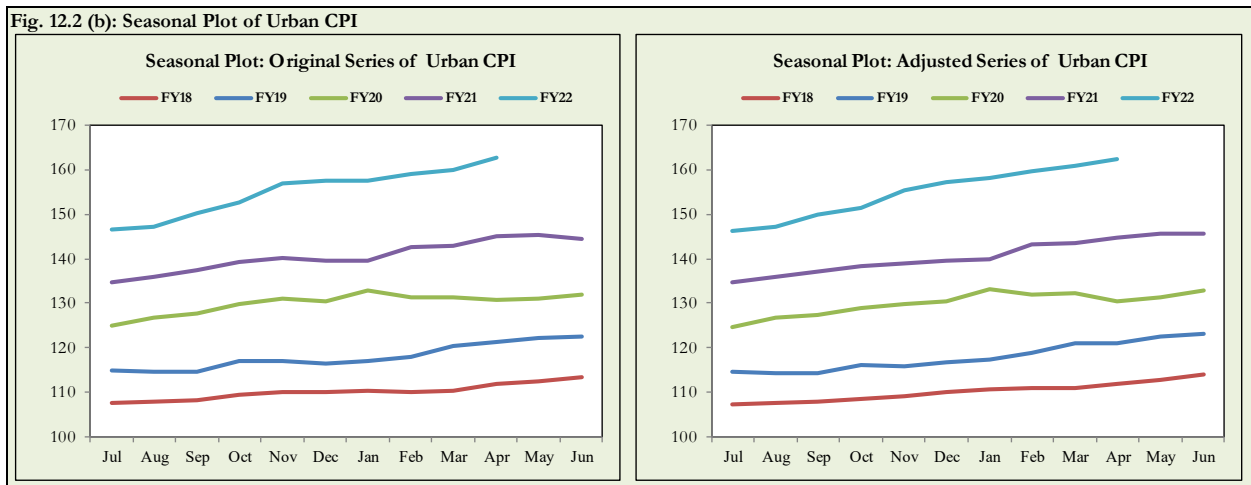
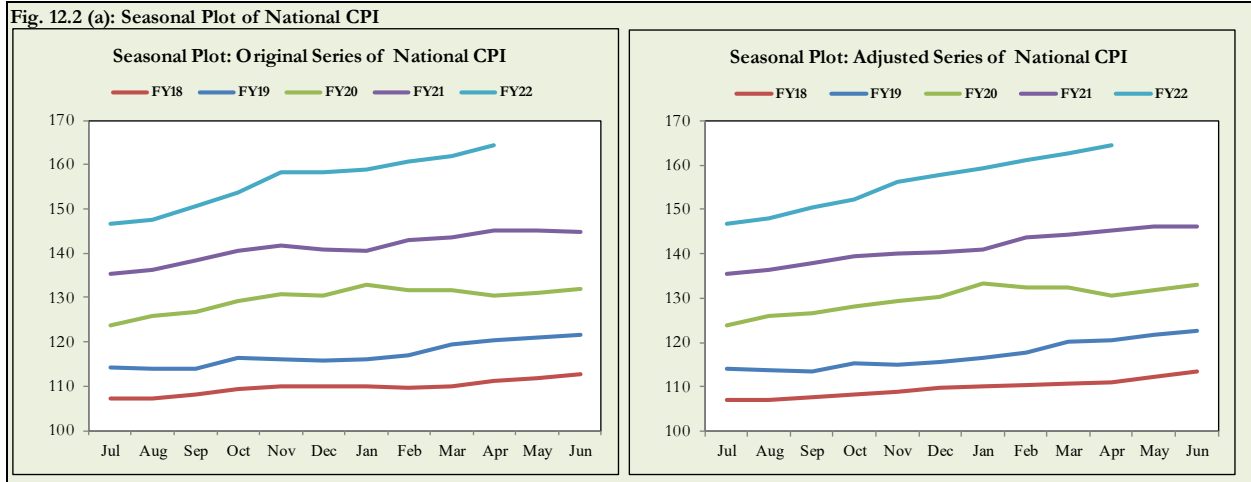


Fig. 12.1 (c): Seasonal Factor of Rural CPI



Figures 12.2 show that seasonally adjusted series are relatively smoother than the original series due to the removal of the seasonal variations. The trend follows the long-term movement in original series and is smoother than the original series because some irregular fluctuations have been removed.



Seasonally adjusted Index of National CPI for April 2022 stood at 164.51 against 164.50 in original series showing an increase of 0.01 because of seasonal adjustment.

Seasonally adjusted Index of Urban CPI for April 2022 stood at 162.39 against 162.63 in original series showing a decrease of 0.24 on account of seasonal adjustment.

Seasonally adjusted Index of Rural CPI for April 2022 stood at 167.69 against 167.31 in original series showing an increase of 0.38 on account of seasonal adjustment.

Month-on-month change of seasonally adjusted National CPI series stood at 1.22% reflecting an increase during April 2022 over previous month and an increase of 1.62% in original series.

Month-on-month change of seasonally adjusted Urban CPI series stood at 1.02% reflecting an increase during April 2022 over previous month and an increase of 1.60% in original series.

Month-on-month change of seasonally adjusted Rural CPI series stood at 1.52% reflecting an increase during April 2022 over previous month and an increase of 1.63% in original series.

It is pertinent to note that in case of MoM inflation, seasonally adjusted rates provide important information.

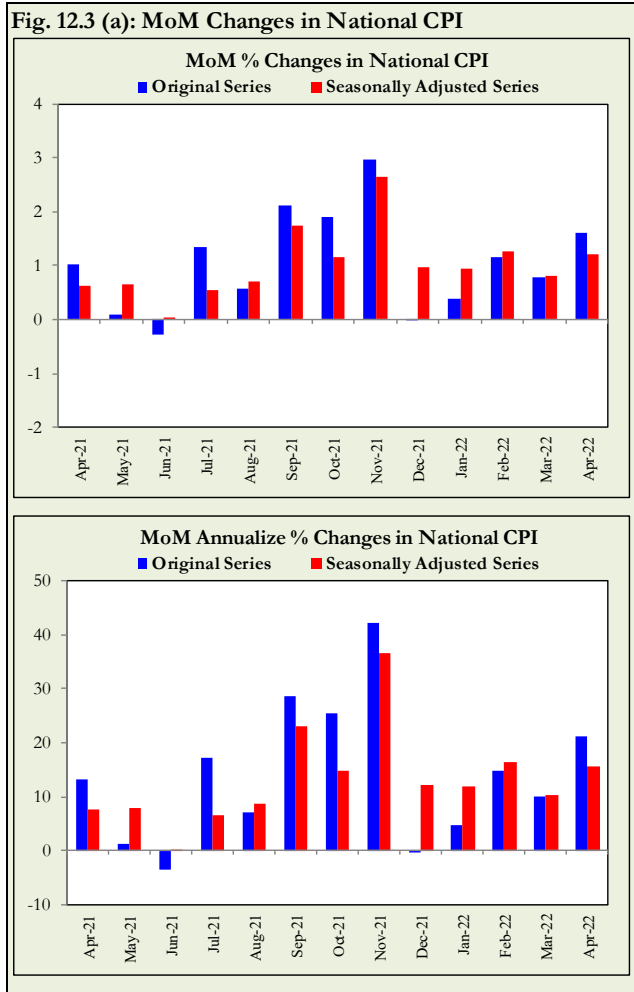


Fig. 12.3 (b): MoM % Changes in Urban CPI

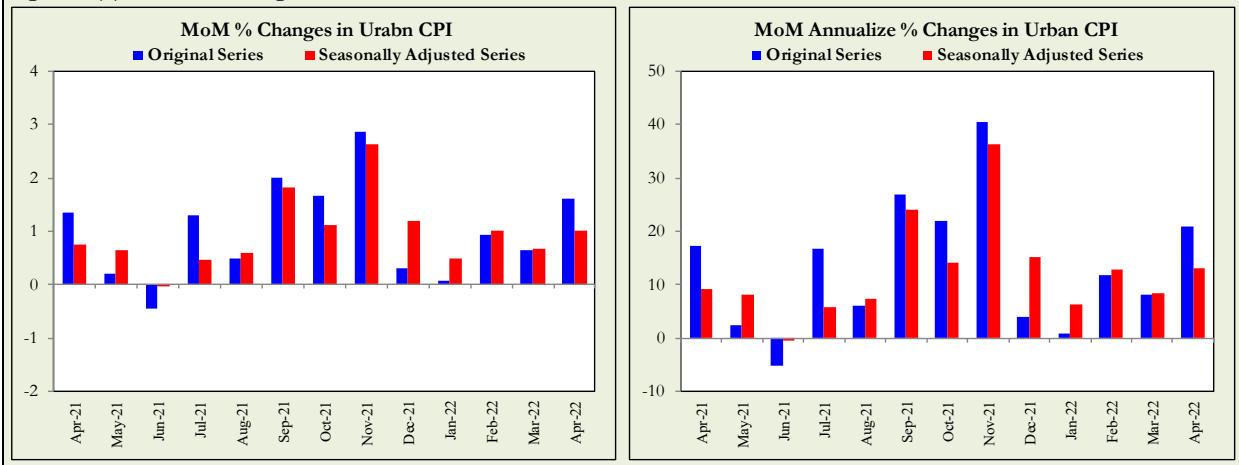
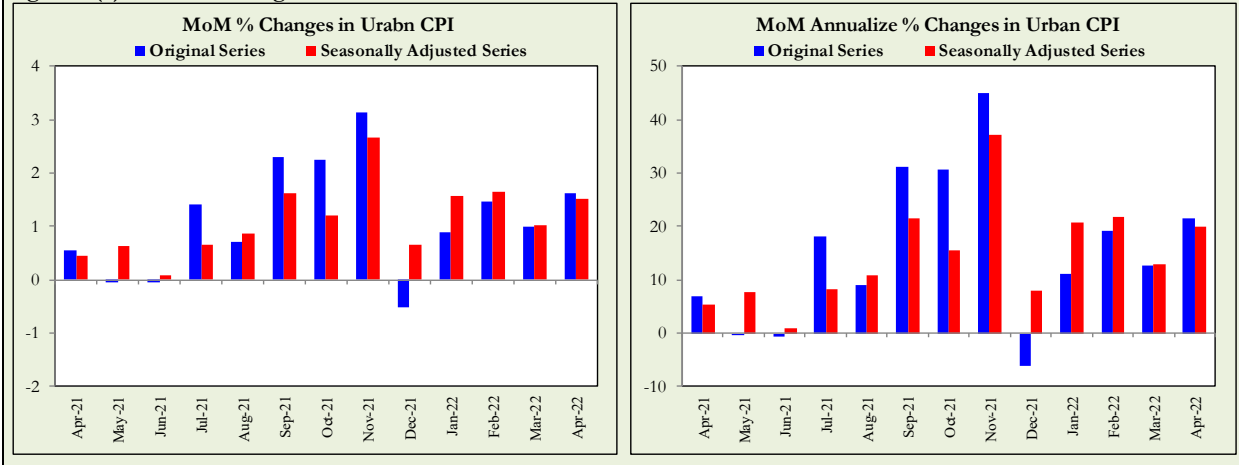


Fig. 12.3 (c): MoM % Changes in Rural CPI



List of Tables

Table A0: Inflation – Summary

Period	CPI							WPI	SPI**	Core Inflation			
	General			Food		Non-Food				NFNE*		Trimmed	
	National	Urban	Rural	Urban	Rural	Urban	Rural			Urban	Rural	Urban	Rural
Year-on-Year													
Apr-21	11.1	11.0	11.3	15.7	14.1	8.2	8.9	16.6	17.8	7.0	7.7	9.8	10.6
May-21	10.9	10.8	10.9	15.3	12.8	8.3	9.2	19.4	16.9	6.8	7.6	10.0	10.3
Jun-21	9.7	9.6	9.7	11.0	9.8	8.8	9.7	20.9	15.4	6.7	7.3	9.4	9.8
Jul-21	8.4	8.7	8.0	9.4	7.3	8.2	8.7	17.3	12.6	6.9	6.9	9.0	8.4
Aug-21	8.4	8.3	8.4	10.2	9.1	7.2	7.7	17.1	12.7	6.3	6.2	7.8	7.8
Sep-21	9.0	9.1	8.8	10.8	9.1	8.1	8.5	19.6	13.8	6.4	6.2	8.7	8.2
Oct-21	9.2	9.6	8.7	9.4	7.2	9.7	10.0	21.2	14.0	6.7	6.7	8.7	8.2
Nov-21	11.5	12.0	10.9	11.9	8.6	12.0	13.0	27.0	17.4	7.6	8.2	9.8	9.5
Dec-21	12.3	12.7	11.6	11.7	9.0	13.4	14.0	26.2	19.3	8.3	8.9	10.8	10.3
Jan-22	13.0	13.0	12.9	13.3	11.8	12.8	13.9	24.0	19.5	8.2	9.0	10.6	10.9
Feb-22	12.2	11.5	13.3	14.3	14.6	9.9	12.2	23.6	18.1	7.8	9.4	9.8	11.3
Mar-22	12.7	11.9	13.9	14.5	15.5	10.4	12.5	23.8	15.8	8.9	10.3	10.5	11.7
Apr-22	13.4	12.2	15.1	15.6	17.7	10.2	12.8	28.1	16.5	9.1	10.9	10.5	12.8
Month-on-Month													
Apr-21	1.0	1.3	0.6	2.7	0.9	0.5	0.3	-0.4	0.4	0.9	0.7	0.6	0.2
May-21	0.1	0.2	-0.03	1.1	0.2	-0.3	-0.3	0.3	0.9	0.2	0.3	0.2	0.4
Jun-21	-0.3	-0.4	-0.1	-1.9	-0.8	0.5	0.6	0.9	-0.8	0.3	0.4	0.3	0.6
Jul-21	1.3	1.3	1.4	1.5	1.6	1.1	1.2	2.3	1.4	0.8	0.7	0.8	0.8
Aug-21	0.6	0.5	0.7	0.5	0.8	0.5	0.6	1.2	0.9	0.2	0.2	0.4	0.6
Sep-21	2.1	2.0	2.3	3.6	3.7	1.1	1.0	3.2	2.9	0.4	0.5	0.9	1.2
Oct-21	1.9	1.7	2.2	1.5	2.6	1.8	1.9	4.2	3.1	0.9	1.0	1.1	1.6
Nov-21	3.0	2.9	3.1	3.9	3.3	2.2	3.0	3.8	4.1	1.1	1.8	1.7	2.2
Dec-21	-0.02	0.3	-0.5	-2.3	-3.1	2.0	1.9	-0.2	0.3	1.1	1.1	1.1	1.0
Jan-22	0.4	0.1	0.9	-0.8	0.4	0.6	1.4	0.6	-0.2	0.8	1.2	0.5	1.1
Feb-22	1.2	0.9	1.5	2.2	2.6	0.2	0.4	1.9	1.3	0.8	0.9	0.8	1.2
Mar-22	0.8	0.7	1.0	1.8	2.3	-0.1	-0.2	3.9	0.6	1.2	1.1	0.8	0.8
Apr-22	1.6	1.6	1.6	3.7	2.8	0.3	0.5	3.2	1.1	1.1	1.2	0.9	0.9

* Non-Food Non-Energy, ** SPI for all income groups combined

Table A1: National CPI Inflation by Groups (YoY and MoM in percent)

Groups	Weights	MoM change			YoY change		
		Apr-21	Mar-22	Apr-22	Apr-21	Mar-22	Apr-22
Food & Non-Alcoholic	34.6	2.2	2.3	3.7	15.9	15.3	17.0
Alcoholic Beverages & Tobacco	1.0	-0.1	0.0	3.1	4.9	1.8	5.1
Clothing & Footwear	8.6	1.1	1.0	2.1	11.9	9.7	10.8
Housing, Water, Elec, Gas & other Fuels	23.6	0.5	-2.2	-0.7	9.7	8.3	7.1
Furnishing & Household Equip. Maintenance etc	4.1	0.9	1.4	1.6	9.5	13.8	14.7
Health	2.8	0.5	0.6	0.9	9.0	10.0	10.4
Transport	5.9	-1.2	0.3	0.4	6.5	26.3	28.3
Communication	2.2	1.0	0.0	0.0	1.5	2.6	1.6
Recreation & Culture	1.6	0.1	1.3	0.4	4.6	9.3	9.7
Education	3.8	0.5	4.7	0.6	1.6	8.3	8.4
Restaurants & Hotels	6.9	0.2	0.9	0.2	8.2	14.6	14.6
Miscellaneous	4.9	0.4	1.6	0.8	10.0	12.4	12.8
Overall National CPI	100.0	1.0	0.8	1.6	11.1	12.7	13.4

Table A2: Urban CPI Inflation by Groups (YoY and MoM in percent)

Groups	Weights	MoM change			YoY change		
		Apr-21	Mar-22	Apr-22	Apr-21	Mar-22	Apr-22
I. Food Group	36.8	2.7	1.8	3.7	15.7	14.5	15.6
Food & Non-Alcoholic Beverages	30.4	3.2	2.1	4.3	17.0	14.8	16.0
Alcoholic Beverages & Tobacco	0.9	0.1	0.1	3.3	6.0	1.5	4.8
Restaurant & Hotels (Food)	5.5	0.3	0.8	0.3	10.4	15.0	15.0
II. Non-Food Group	63.2	0.5	-0.1	0.3	8.2	10.4	10.2
Clothing & Footwear	8.0	1.1	0.9	2.0	12.7	9.6	10.5
Housing, Water, Elec, Gas & other Fuels	27.0	0.7	-2.2	-0.6	9.3	7.1	5.6
Furnishing & Household Equip. Maintenance etc	4.1	0.8	1.1	1.6	8.6	12.6	13.5
Health	2.3	0.5	0.9	0.8	9.4	10.0	10.3
Transport	6.1	-1.2	0.5	0.6	6.8	26.3	28.6
Communication	2.4	1.3	0.0	0.0	2.0	3.3	2.0
Recreation & Culture	1.7	0.0	0.9	0.2	3.2	8.7	8.9
Education	4.9	0.3	5.7	0.6	1.2	9.0	9.2
Restaurants & Hotels (Non-food Component)	1.9	0.0	0.3	0.0	3.2	13.0	13.0
Miscellaneous	4.8	0.6	1.8	0.7	9.8	11.9	12.0
Overall Urban CPI	100.0	1.3	0.7	1.6	11.0	11.9	12.2

Table A3: Rural CPI Inflation by Groups (YoY and MoM in percent)

Groups	Weights	MoM Change			YoY Change		
		Apr-21	Mar-22	Apr-22	Apr-21	Mar-22	Apr-22
I. Food Group	45.9	0.9	2.3	2.8	14.1	15.5	17.7
Food and Non-Alcoholic Beverages	40.9	1.0	2.5	3.1	14.7	15.9	18.2
Alcoholic Beverages, Tobacco	1.3	-0.4	0.0	2.8	3.7	2.3	5.5
Restaurants and Hotels (Food Component)	3.8	0.3	1.1	0.4	11.6	15.3	15.4
II. Non-Food Group	54.1	0.3	-0.2	0.5	8.9	12.5	12.8
Clothing and Footwear	9.5	1.0	1.1	2.3	10.8	9.8	11.3
Housing, Water, Elec., Gas and Other Fuels	18.5	0.0	-2.3	-0.8	10.7	11.1	10.3
Furnishing and Household Equip. Maintenance	4.1	0.9	1.7	1.6	10.8	15.6	16.4
Health	3.5	0.5	0.2	0.9	8.6	10.0	10.4
Transport	5.6	-1.2	0.0	0.2	6.1	26.2	27.9
Communication	2.0	0.4	0.1	0.1	0.8	1.1	0.8
Recreation and Culture	1.4	0.2	2.0	0.8	7.0	10.5	11.0
Education	2.1	1.4	1.1	1.0	2.9	5.6	5.1
Restaurants and Hotels (Non-Food Component)	2.4	0.0	1.3	0.0	0.6	13.4	13.3
Miscellaneous	5.0	0.2	1.4	1.0	10.3	13.1	13.9
Rural CPI	100.0	0.6	1.0	1.6	11.3	13.9	15.1

Table A4: Top Ten Contributors to Urban CPI Inflation (YoY) – April 2022

Items/Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-21	Apr-22		
<u>A. Ranked by Weighted Contribution</u>					
1	Motor Fuel	2.91	9.10	39.23	9.73
2	House Rent	19.26	6.21	5.58	8.38
3	Milk Fresh	7.11	20.37	12.32	6.93
4	Readymade Food	5.52	10.39	15.01	6.66
5	Cooking Oil	1.10	19.23	60.07	6.52
6	Vegetable Ghee	1.03	21.05	58.71	6.24
7	Meat	2.04	10.07	25.64	4.73
8	Wheat Flour	3.01	16.92	18.34	4.24
9	Fresh Fruits	1.44	3.63	30.64	3.96
10	Education	4.88	1.19	9.24	3.73
Total		48.30			61.12
<u>B. Ranked by Percentage Change</u>					
1	Tomatoes	0.35	81.49	124.68	3.00
2	Liquefied Hydrocarbons	0.51	5.27	78.96	3.18
3	Mustard Oil	0.01	24.44	61.72	0.07
4	Onions	0.59	-39.57	61.64	1.64
5	Cooking Oil	1.10	19.23	60.07	6.52
6	Vegetable Ghee	1.03	21.05	58.71	6.24
7	Pulse Masoor	0.16	-10.20	40.29	0.40
8	Motor Fuel	2.91	9.10	39.23	9.73
9	Gram Whole	0.09	-3.00	30.85	0.21
10	Fresh Fruits	1.44	3.63	30.64	3.96
Total		8.19			34.95
<u>C. Ranked by Weights</u>					
1	House Rent	19.26	6.21	5.58	8.38
2	Milk Fresh	7.11	20.37	12.32	6.93
3	Readymade Food	5.52	10.39	15.01	6.66
4	Education	4.88	1.19	9.24	3.73
5	Electricity Charges	4.56	29.06	-1.53	-0.55
6	Wheat Flour	3.01	16.92	18.34	4.24
7	Appliances/Articles/Products For Personal	2.98	11.24	9.52	2.27
8	Motor Fuel	2.91	9.10	39.23	9.73
9	Cotton Cloth	2.22	16.56	12.46	2.35
10	Meat	2.04	10.07	25.64	4.73
Total		54.49			48.47

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Urban CPI, which is 12.2 percent in April 2022.

Table A5: Top Ten Contributors to Urban CPI Inflation (MoM) in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh Fruits	1.44	15.17	21.07	20.36
2	Fresh Vegetables	1.53	-0.29	14.41	13.85
3	Tomatoes	0.35	-36.53	51.53	12.74
4	Cooking Oil	1.10	5.05	11.35	12.25
5	House Rent	19.26	0.00	1.12	12.11
6	Onions	0.59	7.01	42.83	8.95
7	Vegetable Ghee	1.03	8.32	8.26	8.90
8	Wheat Flour	3.01	-1.08	3.45	6.32
9	Milk Fresh	7.11	1.52	1.27	5.50
10	Meat	2.04	0.81	3.25	5.05
Total		37.46			106.03
B. Ranked by Percentage Change					
1	Tomatoes	0.35	-36.53	51.53	12.74
2	Onions	0.59	7.01	42.83	8.95
3	Fresh Fruits	1.44	15.17	21.07	20.36
4	Fresh Vegetables	1.53	-0.29	14.41	13.85
5	Cooking Oil	1.10	5.05	11.35	12.25
6	Vegetable Ghee	1.03	8.32	8.26	8.90
7	Tailoring	1.07	0.57	6.37	4.18
8	Gram Whole	0.09	2.11	5.67	0.32
9	Motor Vehicles	0.81	1.76	5.42	2.91
10	Major Tools & Equipments	0.01	0.42	4.50	0.02
Total		8.02			84.48
C. Ranked by Weights					
1	House Rent	19.26	0.00	1.12	12.11
2	Milk Fresh	7.11	1.52	1.27	5.50
3	Readymade Food	5.52	0.84	0.25	0.88
4	Education	4.88	5.65	0.55	1.66
5	Electricity Charges	4.56	-13.40	-7.84	-20.79
6	Wheat Flour	3.01	-1.08	3.45	6.32
7	Appliances/Articles/Products For	2.98	1.36	0.65	1.18
8	Motor Fuel	2.91	-1.95	0.10	0.23
9	Cotton Cloth	2.22	1.42	2.05	2.94
10	Meat	2.04	0.81	3.25	5.05
Total		54.49			15.08

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Urban CPI, which is 1.6 percent in April 2022.

Table A6: Top and Bottom Fifteen Contributors to Urban CPI Inflation (YoY) in April 2022

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-21	Apr-22		
A. Ranked by Weighted Contribution					
1	Motor Fuel	2.91	9.10	39.23	9.73
2	House Rent	19.26	6.21	5.58	8.38
3	Milk Fresh	7.11	20.37	12.32	6.93
4	Readymade Food	5.52	10.39	15.01	6.66
5	Cooking Oil	1.10	19.23	60.07	6.52
6	Vegetable Ghee	1.03	21.05	58.71	6.24
7	Meat	2.04	10.07	25.64	4.73
8	Wheat Flour	3.01	16.92	18.34	4.24
9	Fresh Fruits	1.44	3.63	30.64	3.96
10	Education	4.88	1.19	9.24	3.73
11	Liquefied Hydrocarbons	0.51	5.27	78.96	3.18
12	Tomatoes	0.35	81.49	124.68	3.00
13	Fresh Vegetables	1.53	11.45	19.15	2.55
14	Transport Services	1.75	3.35	20.32	2.50
15	Cotton Cloth	2.22	16.56	12.46	2.35
Total		54.66			74.70
Bottom 15 Contributors					
1	Condiments And Spices	1.33	31.62	-16.31	-2.59
2	Eggs	0.51	42.41	-19.42	-1.06
3	Potatoes	0.45	9.97	-20.73	-1.00
4	Sugar	1.11	18.20	-9.67	-0.94
5	Electricity Charges	4.56	29.06	-1.53	-0.55
6	Pulse Moong	0.17	-16.57	-25.94	-0.37
7	Newspapers	0.07	0.00	0.00	0.00
8	Gas Charges	1.08	0.00	0.00	0.00
9	Therapeutic Appliances And	0.01	8.77	5.39	0.00
10	Postal Services	0.02	10.35	1.45	0.00
11	Dental Services	0.02	8.53	5.75	0.01
12	Major Tools & Equipments	0.01	15.06	14.83	0.01
13	Carpets	0.03	1.91	7.70	0.02
14	Dessert Preparation	0.04	8.50	7.47	0.02
15	Motor Vehicle Tax	0.05	0.00	7.62	0.03
Total		9.46			-6.42

Table A7: Top and Bottom Fifteen Contributors to Urban CPI Inflation (MoM) in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh Fruits	1.44	15.17	21.07	20.36
2	Fresh Vegetables	1.53	-0.29	14.41	13.85
3	Tomatoes	0.35	-36.53	51.53	12.74
4	Cooking Oil	1.10	5.05	11.35	12.25
5	House Rent	19.26	0.00	1.12	12.11
6	Onions	0.59	7.01	42.83	8.95
7	Vegetable Ghee	1.03	8.32	8.26	8.90
8	Wheat Flour	3.01	-1.08	3.45	6.32
9	Milk Fresh	7.11	1.52	1.27	5.50
10	Meat	2.04	0.81	3.25	5.05
11	Tailoring	1.07	0.57	6.37	4.18
12	Cotton Cloth	2.22	1.42	2.05	2.94
13	Motor Vehicles	0.81	1.76	5.42	2.91
14	Household Equipments	1.00	1.55	3.88	2.37
15	Cigarettes	0.72	0.00	4.39	1.73
Total		43.28			120.16
Bottom 15 Contributors					
1	Electricity Charges	4.56	-13.40	-7.84	-20.79
2	Chicken	1.36	33.63	-9.40	-10.35
3	Liquefied Hydrocarbons	0.51	7.79	-3.75	-1.94
4	Transport Services	1.75	5.69	-0.97	-1.00
5	Sugar	1.11	-1.02	-0.70	-0.43
6	Solid Fuel	0.42	-0.09	-1.00	-0.23
7	Wheat Products	0.09	3.80	-3.28	-0.22
8	Dry Fruits	0.33	0.22	-0.57	-0.11
9	Wheat	0.61	-4.89	-0.25	-0.11
10	Milk Powder	0.31	7.07	-0.55	-0.10
11	Gur	0.04	-1.10	-1.23	-0.03
12	Fish	0.39	-0.76	-0.07	-0.01
13	Pulse Mash	0.12	-0.09	-0.13	-0.01
14	Pulse Moong	0.17	-0.70	-0.01	0.00
15	Newspapers	0.07	0.00	0.00	0.00
Total		11.84			-35.33

Table A8: Top and Bottom Fifteen Contributors to MoM Urban CPI Food Inflation in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh fruits	1.44	15.17	21.07	20.36
2	Fresh vegetables	1.53	-0.29	14.41	13.85
3	Tomatoes	0.35	-36.53	51.53	12.74
4	Cooking oil	1.10	5.05	11.35	12.25
5	Onions	0.59	7.01	42.83	8.95
6	Vegetable ghee	1.03	8.32	8.26	8.90
7	Wheat flour	3.01	-1.08	3.45	6.32
8	Milk fresh	7.11	1.52	1.27	5.50
9	Meat	2.04	0.81	3.25	5.05
10	Cigarettes	0.72	0.00	4.39	1.73
11	Readymade food	5.52	0.84	0.25	0.88
12	Milk products	0.64	0.87	1.87	0.74
13	Condiments and Spices	1.33	-2.38	0.46	0.42
14	Potatoes	0.45	-3.68	1.43	0.37
15	Gram whole	0.09	2.11	5.67	0.32
Total		26.95			98.38
Bottom 15 Contributors					
1	Chicken	1.36	33.63	-9.40	-10.35
2	Sugar	1.11	-1.02	-0.70	-0.43
3	Wheat products	0.09	3.80	-3.28	-0.22
4	Dry fruits	0.33	0.22	-0.57	-0.11
5	Wheat	0.61	-4.89	-0.25	-0.11
6	Milk powder	0.31	7.07	-0.55	-0.10
7	Gur	0.04	-1.10	-1.23	-0.03
8	Fish	0.39	-0.76	-0.07	-0.01
9	Pulse mash	0.12	-0.09	-0.13	-0.01
10	Pulse moong	0.17	-0.70	-0.01	0.00
11	Pan prepared	0.14	0.28	0.00	0.00
12	Honey	0.10	0.03	0.15	0.01
13	Dessert preparation	0.04	0.77	0.55	0.01
14	Ice cream	0.10	0.37	0.27	0.02
15	Mustard oil	0.01	8.73	2.31	0.03
Total		4.93			-11.30

Table A9: Top and Bottom Fifteen Contributors to MoM Urban CPI Non-Food Inflation in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	House rent	19.26	0.00	1.12	12.11
2	Tailoring	1.07	0.57	6.37	4.18
3	Cotton cloth	2.22	1.42	2.05	2.94
4	Motor vehicles	0.81	1.76	5.42	2.91
5	Household equipments	1.00	1.55	3.88	2.37
6	Education	4.88	5.65	0.55	1.66
7	Washing soap/detergents/match	1.41	1.01	1.36	1.24
8	Appliances/Articles/Products for	2.98	1.36	0.65	1.18
9	Hosiry	0.41	0.47	4.41	1.08
10	Readymade garments	1.32	0.26	1.37	1.03
11	Personal Effects n.e.c.	0.94	3.53	0.81	0.66
12	Drugs and medicines	1.07	1.47	0.82	0.58
13	Construction input items	0.38	2.00	1.84	0.46
14	Doctor (MBBS) clinic fee	0.40	0.54	1.08	0.35
15	Furniture and furnishing	0.48	2.53	0.95	0.27
Total		38.64			33.04
Bottom 15 Contributors					
1	Electricity charges	4.56	-13.40	-7.84	-20.79
2	Liquefied Hydrocarbons	0.51	7.79	-3.75	-1.94
3	Transport services	1.75	5.69	-0.97	-1.00
4	Solid Fuel	0.42	-0.09	-1.00	-0.23
5	Newspapers	0.07	0.00	0.00	0.00
6	Communication Services	1.88	0.00	0.00	0.00
7	Motor vehicle tax	0.05	0.00	0.00	0.00
8	Gas charges	1.08	0.00	0.00	0.00
9	Postal services	0.02	0.00	0.00	0.00
10	Woolen readymade garments	0.43	0.00	0.00	0.00
11	Hospitals services	0.57	0.50	0.00	0.00
12	Accommodation Services	0.13	3.28	0.00	0.00
13	Therapeutic Appliances and	0.01	0.33	0.01	0.00
14	Carpets	0.03	0.16	0.06	0.00
15	Dental services	0.02	0.10	0.58	0.00
Total		11.52			-23.96

Table A10: Top Ten Contributors to Rural CPI Inflation (YoY) in April 2022

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-21	Apr-22		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	21.38	62.22	13.10
2	Milk Fresh	10.38	13.48	12.17	7.66
3	Motor Fuels	2.49	9.87	38.47	6.53
4	Solid Fuel	4.48	9.18	15.74	4.54
5	Tomatoes	0.51	60.03	169.87	4.22
6	Wheat Flour	3.43	19.33	18.82	4.20
7	Readymade Food	3.80	11.64	15.40	4.09
8	Fresh Fruits	1.45	-1.30	39.20	4.06
9	Liquefied Hydrocarbons	1.00	0.81	64.64	3.83
10	Fresh Vegetables	2.09	6.87	27.14	3.74
Total		32.01			55.97
B. Ranked by Percentage Change					
1	Tomatoes	0.51	60.03	169.87	4.22
2	Onions	0.90	-43.53	77.72	2.25
3	Liquefied Hydrocarbons	1.00	0.81	64.64	3.83
4	Cooking Oil	0.60	23.29	63.94	3.30
5	Vegetable Ghee	2.38	21.38	62.22	13.10
6	Mustard Oil	0.01	23.71	59.23	0.06
7	Pulse Masoor	0.21	-2.34	45.30	0.48
8	Gram Whole	0.11	-1.14	39.49	0.25
9	Fresh Fruits	1.45	-1.30	39.20	4.06
10	Motor Fuels	2.49	9.87	38.47	6.53
Total		9.66			38.08
C. Ranked by Weights					
1	Milk Fresh	10.38	13.48	12.17	7.66
2	House Rent	8.61	6.58	5.73	3.12
3	Solid Fuel	4.48	9.18	15.74	4.54
4	Readymade Food	3.80	11.64	15.40	4.09
5	Wheat	3.47	24.48	14.10	3.48
6	Electricity Charges	3.44	29.06	-1.53	-0.34
7	Wheat Flour	3.43	19.33	18.82	4.20
8	Cotton Cloth	2.84	13.41	11.76	2.55
9	Motor Fuels	2.49	9.87	38.47	6.53
10	Vegetable Ghee	2.38	21.38	62.22	13.10
Total		45.32			48.93

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in YoY change in Rural CPI, which is 15.1 percent in April 2022.

Table A11: Top Ten Contributors to Rural CPI Inflation (MoM) in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh Fruits	1.45	16.67	26.47	24.63
2	Tomatoes	0.51	-33.87	62.18	20.97
3	Vegetable Ghee	2.38	10.30	5.60	14.77
4	Onions	0.90	6.50	50.38	14.05
5	Fresh Vegetables	2.09	4.65	6.27	8.43
6	Cotton Cloth	2.84	2.34	3.95	7.50
7	Milk Fresh	10.38	1.16	0.92	5.25
8	House Rent	8.61	0.00	0.98	4.55
9	Rice	1.55	0.43	2.72	3.15
10	Meat	1.71	1.08	2.41	3.03
Total		32.42			106.33
B. Ranked by Percentage Change					
1	Tomatoes	0.51	-33.87	62.18	20.97
2	Onions	0.90	6.50	50.38	14.05
3	Fresh Fruits	1.45	16.67	26.47	24.63
4	Fresh Vegetables	2.09	4.65	6.27	8.43
5	Vegetable Ghee	2.38	10.30	5.60	14.77
6	Gram Whole	0.11	1.74	5.48	0.37
7	Major Tools And Equipments	0.03	0.13	4.38	0.07
8	Cotton Cloth	2.84	2.34	3.95	7.50
9	Beans	0.09	2.83	3.64	0.24
10	Tailoring	1.30	0.04	3.60	2.74
Total		11.70			93.77
C. Ranked by Weights					
1	Milk Fresh	10.38	1.16	0.92	5.25
2	House Rent	8.61	0.00	0.98	4.55
3	Solid Fuel	4.48	-0.20	0.55	1.50
4	Readymade Food	3.80	1.14	0.44	1.10
5	Wheat	3.47	-2.39	-2.44	-5.73
6	Electricity Charges	3.44	-13.40	-7.84	-14.95
7	Wheat Flour	3.43	-1.32	0.63	1.36
8	Cotton Cloth	2.84	2.34	3.95	7.50
9	Motor Fuels	2.49	-2.24	0.12	0.22
10	Vegetable Ghee	2.38	10.30	5.60	14.77
Total		45.32			15.57

Note: Weighted contribution is estimated by multiplying the weights by the price change of an item; this is then reported as a share in MoM change in Rural CPI, which is 1.6 percent in April 2022.

Table A12: Top and Bottom Fifteen Contributors to Rural CPI Inflation (YoY) in April 2022

Items/ Contributors	Weights	YoY Change		Weighted Contribution (%)	
		Apr-21	Apr-22		
A. Ranked by Weighted Contribution					
1	Vegetable Ghee	2.38	21.38	62.22	13.10
2	Milk Fresh	10.38	13.48	12.17	7.66
3	Motor Fuels	2.49	9.87	38.47	6.53
4	Solid Fuel	4.48	9.18	15.74	4.54
5	Tomatoes	0.51	60.03	169.87	4.22
6	Wheat Flour	3.43	19.33	18.82	4.20
7	Readymade Food	3.80	11.64	15.40	4.09
8	Fresh Fruits	1.45	-1.30	39.20	4.06
9	Liquefied Hydrocarbons	1.00	0.81	64.64	3.83
10	Fresh Vegetables	2.09	6.87	27.14	3.74
11	Wheat	3.47	24.48	14.10	3.48
12	Cooking Oil	0.60	23.29	63.94	3.30
13	Meat	1.71	10.86	26.19	3.29
14	House Rent	8.61	6.58	5.73	3.12
15	Transport Services	1.80	2.42	24.81	2.56
Total		48.20			71.72
Bottom 15 Contributors					
1	Condiments And Spices	1.49	13.72	-14.82	-1.90
2	Potatoes	0.74	12.53	-18.97	-1.21
3	Sugar	2.03	16.51	-8.09	-1.15
4	Eggs	0.57	46.14	-19.50	-0.94
5	Pulse Moong	0.25	-14.66	-26.93	-0.48
6	Electricity Charges	3.44	29.06	-1.53	-0.34
7	Motor Vehicle Tax	0.02	0.00	-5.56	-0.01
8	Postal Services	0.01	0.00	0.00	0.00
9	Accommodation Services	0.14	0.03	0.00	0.00
10	Newspapers	0.02	2.40	0.00	0.00
11	Garbage Collection	0.01	4.89	10.66	0.01
12	Dessert Preparation	0.01	11.56	7.99	0.01
13	Communication Services	1.65	0.69	0.09	0.01
14	Dental Services	0.02	7.84	7.92	0.01
15	Water Supply	0.06	36.99	1.63	0.01
Total		10.46			-5.98

Table A13: Top and Bottom Fifteen Contributors to Rural CPI (MoM) Inflation in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh Fruits	1.45	16.67	26.47	24.63
2	Tomatoes	0.51	-33.87	62.18	20.97
3	Vegetable Ghee	2.38	10.30	5.60	14.77
4	Onions	0.90	6.50	50.38	14.05
5	Fresh Vegetables	2.09	4.65	6.27	8.43
6	Cotton Cloth	2.84	2.34	3.95	7.50
7	Milk Fresh	10.38	1.16	0.92	5.25
8	House Rent	8.61	0.00	0.98	4.55
9	Rice	1.55	0.43	2.72	3.15
10	Meat	1.71	1.08	2.41	3.03
11	Tailoring	1.30	0.04	3.60	2.74
12	Household Equipments	1.28	1.73	2.42	1.90
13	Cigarettes	1.24	0.00	2.93	1.84
14	Cooking Oil	0.60	12.35	2.54	1.71
15	Solid Fuel	4.48	-0.20	0.55	1.50
Total		41.32			116.02
Bottom 15 Contributors					
1	Electricity Charges	3.44	-13.40	-7.84	-14.95
2	Chicken	1.46	33.34	-9.26	-10.75
3	Wheat	3.47	-2.39	-2.44	-5.73
4	Sugar	2.03	0.13	-1.48	-1.60
5	Eggs	0.57	-13.97	-4.51	-1.49
6	Condiments And Spices	1.49	0.77	-0.38	-0.34
7	Liquefied Hydrocarbons	1.00	5.58	-0.34	-0.27
8	Pulse Moong	0.25	-0.23	-1.52	-0.16
9	Gur	0.15	-1.20	-1.76	-0.15
10	Transport Services	1.80	3.65	-0.11	-0.11
11	Potatoes	0.74	-3.78	-0.14	-0.06
12	Pulse Gram	0.28	0.19	-0.08	-0.01
13	Motor Vehicle Tax	0.02	0.00	0.00	0.00
14	Accommodation Services	0.14	0.00	0.00	0.00
15	Newspapers	0.02	0.00	0.00	0.00
Total		16.86			-35.62

Table A14: Top and Bottom Fifteen Contributors to MoM Rural CPI Food Inflation in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Fresh fruits	1.45	16.67	26.47	24.63
2	Tomatoes	0.51	-33.87	62.18	20.97
3	Vegetable ghee	2.38	10.30	5.60	14.77
4	Onions	0.90	6.50	50.38	14.05
5	Fresh Vegetables	2.09	4.65	6.27	8.43
6	Milk fresh	10.38	1.16	0.92	5.25
7	Rice	1.55	0.43	2.72	3.15
8	Meat	1.71	1.08	2.41	3.03
9	Cigarettes	1.24	0.00	2.93	1.84
10	Cooking oil	0.60	12.35	2.54	1.71
11	Wheat Flour	3.43	-1.32	0.63	1.36
12	Readymade Food	3.80	1.14	0.44	1.10
13	Milk products	0.96	0.65	1.42	0.73
14	Tea	1.26	2.33	0.83	0.60
15	Gram Whole	0.11	1.74	5.48	0.37
Total		32.37			102.01
Bottom 15 Contributors					
1	Chicken	1.46	33.34	-9.26	-10.75
2	Wheat	3.47	-2.39	-2.44	-5.73
3	Sugar	2.03	0.13	-1.48	-1.60
4	Eggs	0.57	-13.97	-4.51	-1.49
5	Condiments and Spices	1.49	0.77	-0.38	-0.34
6	Pulse Moong	0.25	-0.23	-1.52	-0.16
7	Gur	0.15	-1.20	-1.76	-0.15
8	Potatoes	0.74	-3.78	-0.14	-0.06
9	Pulse Gram	0.28	0.19	-0.08	-0.01
10	Pan Prepared	0.04	0.00	0.00	0.00
11	Fish	0.26	0.46	0.00	0.00
12	Dry fruits	0.25	0.25	0.02	0.00
13	Honey	0.03	0.00	0.31	0.01
14	Milk powder	0.11	1.35	0.15	0.01
15	Dessert Preparation	0.01	2.04	1.41	0.01
Total		11.15			-20.28

Table A15: Top and Bottom Fifteen Contributors to MoM Rural CPI Non-Food Inflation in April 2022

Items/ Contributors	Weights	MoM Change		Weighted Contribution (%)	
		Mar-22	Apr-22		
A. Ranked by Weighted Contribution					
1	Cotton Cloth	2.84	2.34	3.95	7.50
2	House Rent	8.61	0.00	0.98	4.55
3	Tailoring	1.30	0.04	3.60	2.74
4	Household Equipments	1.28	1.73	2.42	1.90
5	Solid Fuel	4.48	-0.20	0.55	1.50
6	Drugs and Medicines	1.58	-0.94	1.36	1.37
7	Appliances/Articles/Products for	2.27	0.89	1.09	1.33
8	Personal Grooming Services	1.54	0.72	1.20	1.22
9	Washing Soaps, Detergents and	1.70	2.47	1.16	1.20
10	Education	2.13	1.11	0.96	1.09
11	Footware	1.92	0.26	0.92	0.95
12	Hosiry	0.43	0.26	2.47	0.82
13	Construction Input Items	0.63	3.34	2.30	0.81
14	Readymade Garments	1.13	1.74	1.20	0.79
15	Woolen Cloth	1.10	0.68	0.88	0.57
Total		32.94			28.34
Bottom 15 Contributors					
1	Electricity Charges	3.44	-13.40	-7.84	-14.95
2	Liquefied Hydrocarbons	1.00	5.58	-0.34	-0.27
3	Transport Services	1.80	3.65	-0.11	-0.11
4	Accommodation Services	0.14	0.00	0.00	0.00
5	Newspapers	0.02	0.00	0.00	0.00
6	Communication Services	1.65	0.00	0.00	0.00
7	Postal Services	0.01	0.00	0.00	0.00
8	Motor Vehicle Tax	0.02	0.00	0.00	0.00
9	Woolen Readymade Garments	0.54	0.00	0.00	0.00
10	Garbage Collection	0.01	0.00	0.00	0.00
11	Dental Services	0.02	2.31	0.00	0.00
12	Stationery	0.37	3.35	0.00	0.00
13	Marriage Hall Charges	2.25	1.34	0.00	0.00
14	Cleaning and Laundering	0.02	2.24	0.48	0.01
15	Medical Tests	0.40	0.76	0.11	0.03
Total		11.68			-15.30

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Chilies Powder National 200 Gm Packet, Ginger (Adrak), Pulse Moong (Washed), Potatoes, Eggs Farm, Peas (Matar), Sugar Refined, Cardamom Small (Average Quality), Cumin Seed (Zeera)	Turmeric Powder National 50 Gm Packet, Coriander Seed Powder National 200 Gm Packet, Chicken Farm Broiler (Live), Jam-E-Shireen Standard Size (800 Ml), Pepper Black National 50 Gm	Milk Tetra Pack 1 Litre (Milk Pak/Haleeb/Olpers), Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Rice Irri-6/9 (Sindh/Punjab), Fish Rahu (Medium Size), Suji, Custard	Rice Basmati 385/386, Pulse Gram, Mineral Water Nestle 1.5 Liter, Groundnuts (Moong Phali) With Shell, Vermicelli (Packet), Curd, Besan, Tea Lipton Yellow Label 190 Gm Packet, Fruit Juice Small Packet 250
Alcoholic Beverages & Tobacco		Cigarettes Capstan 20'S Packet,	Pan Prepared (Sweet With Beetle Nuts), Cigarettes Gold Leaf 20'S Packet,	
Clothing & Footwear	Cheetah 50 Size 3-5 Servis, Ladies Sponge Chappal Bata, Gents Shoes Servis, Children Shoes Power Lite Bata,	Full Pant Boy Length 24"/26", Shoe Repair Full Sole, Shirt Boy Length 24"/26", Linen, Ladies (Average Quality), Dopatta Cotton (Average Quality),	Pullover Gents Oxford/Bonanza, Awami Suit Gents Wash & Wear (Average Quality), Dopatta Georgette (Average Quality), Women Shalwar Kameez (Average Quality), Gents Sandal Bata, Lawn Printed Gul Ahmed/Al Karam, Pant Cloth Wash & Wear (Average Quality), Brassier (Average Quality),	Chaddar (Wash-N-Wear) (2X2.5 Meter), Tailoring Charges Awami Suit (Male), School Uniform Boys (Pant & Shirt) 24"/26", School Uniform Girls (Kameez & Shalwar) 24"/26", Tailoring Charges Pant (Men), Vest "Baniyan" For Men Average Quality, Tailoring Charges Simple Suit (Female), Heavy Weight Suiting Lawrence Pur (Average Quality), Pullover Ladies
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units, Electricity Charges Combined, Electricity Charges 301-700 Units, Gas Charges Upto 3.3719 Mmbtu , Gas Charges 3.3719 - 6.7438 Mmbtu	Electricity Charges Above 700 Units, Water Charges Per House, Bricks New 1st Class, Painter Wage Rate,	Charges For Refuse/Waste Collection, House Rent Combined, Cement Blocks (6"X8"X12"), Synthetic Enamel Ici Balti 3.64 Litre, Sand (Black Pit),	Mason Wage Rate, Electrician Charges, Firewood Whole, Plumber Wage Rate, Bajri, Unskilled Labor Wage Rate, Cement (Local) 50 Kg Bag, Iron Bars (M.S. Bar) 1/2 " 40 Grade, Lpg 11.67 Kg Cylinder,
Furnishing & Household Equip. Maintenance etc		Phenyl Tyfon/Finis 2.75 Litre Bottle, Finis 400 Ml Bottle, Towel Medium Size (3' X 2'), Boot Polish Cherry/Kiwi 42 Ml, Bed Sheet Double With Two Pillow Covers (Superior Quality), Dining Table Wit Glass Top And Six Chairs (Average Quality),	Cot Iron (Charpai), Blanket Single (Sn), Chair Plastic (Chairman) (Average Quality), Bed Sheet Single (Superior Quality), Sewing Machine (Sn) Without Cover, Energy Saver Philips 14 Watt, Plain Carpet, Cleanser Powder Vim 900 Gm	Bucket (Balti) Plastic Medium Size, Match Box, Washing Machine With Spinner (Super Asia Or Similar Brand) (Sn), Lota Plastic Medium Size (Average Quality), Sofa Set Five Seater, Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Dinner Set Plastic 72 Pieces Super Quality,
Health	Hydriyllin Syrup 120 Ml Bottle,	Sugar Test (Random/Fasting) Charges Of Both, Ventolin Tablets 2 Mg, Johar Joshanda Instant (Sachet) Packet, Blood Test (Cp) Charges, Gynecologist Fee Per Visit, Dental Surgeon Fee Per Visit, Daonil Tablets 5 Mg, Electronic Bp Checking Apparatus,	Ecg Charges, Glucometer, Dettol Medium Bottle, Flagyl Tablets 400 Mg, Dental Extraction Fee, Amoxil Capsule 250 Mg, Physiotherapist Fee Per Visit, Cost Of Surgery (C-Section), Cac 1000 Tablets Sandoz Bottle, Phenergan Syrup 120 Ml	Lederplex Syrup Bottle, Glaxose-D 400 Gm Packet, Entox Tablets, Doctor (Mbbs) Clinic Fee, Inderal Tablets 10 Mg, X-Ray (Chest) Charges, Betnovate-N Ointment 10 Gm Tube, Urine Test (Dr) Charges, Ultrasound Abdominal, Panadol Tablets Plain,
Transport	Car Suzuki 800 Cc Without Ac,	Train Fare Business Class Per Person,	Mini Bus Fare Minimum Within City, Car Toyota 1300 Cc Xli, Motorcycle Service Charges, Car Tax 800 Cc To 1500 Cc,	Train Fare Ac Sleeper Per Person, Bus Fare Minimum Within City, Train Fare Ac Lower Per Person, Auto Rickshaw Fare, Mini Bus Fare Maximum Within City, Taxi Four Seater Fare, Tire Car Mehran Tubeless (General), Car Service Charges, Mobil Oil (Havoline 20W-50), Suzuki Fare Minimum
Communication	Mobile Call Charges, Telephone Call Charges,	Courier Charges Minimum Within Zone Outside City (Tcs), Internet Charges (Dsl) 1 Mb (Unlimited),	Mobile Set With Rear Camera And Without Touch Screen,	
Recreation & Culture	Newspaper Daily Dawn, Newspaper Daily Jang, Akhbar-E-Jehan Weekly, Mag The Weekly (Magazine),	Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, Cable Charges, Urdu Book Ba/B.Sc, English Book Ba/B.Sc, Laptop Dell/Hp/Acer Core I5, Display (14"-15"),	Led Sony/Samsung 32" Colored, English Book Class Vi, Mathematics Book Class Ix And X (Text Book Board), Lead Pencil Goldfish, Ballpoint Pen Local, Mathematics Book Class Xi (Text Book Board),	Exercise Book (With Lines) 80 To 100 Pages, Urdu Book Class Ix And X (Text Book Board), Mathematics Book Class V (Text Book Board), English Book Class Xi Complete Set, English Book Class Ix And X, Pen Ink Dollar 57 Ml Bottle, Recreational Park Charges (Minimum
Education		Government College Fee First Year, Private College Fee First Year, Government University Fee M.S.C / M.A., Coaching Fee For Class Ix/X Science Group, Coaching Fee For Class	Tuition Fee Private University M.Sc./M.A, Government Medical College/University Tuition Fee For Mbbs (1st Year),	Private School Fee English Medium Average Standard (Class V), Private School Fee English Medium Average Standard (Class I), Private School Fee English Medium Average Standard (Class Vi),
Restaurant & Hotels		Government Hostel Accommodation Fee For Intermediate College Per Student,	Pizza Chicken Medium Size (Average Quality),	Burger With Shami Kabab (Average Quality), Seekh Kabab (Beef) (Average Quality), Cooked Chicken At Average Hotel, Marriage Hall Charges With Furniture, Chicken Biryani Full/Double, Marriage Hall Service Charges With Food
Miscellaneous		Wall Clock Quartz (Average Quality), Purse Ladies Medium Size (Average Quality), Face Cream Ponds Medium Size (Cold), Lipstick Swiss Miss/Medora (Medium), Tooth Brush (Shield),	Toilet Soap Lux 75 Gm, Pampers (Medium Size), Hair Style Charges (At Average Beauty Parlor), Tissue Paper Perfumed Box 100 Napkins, Artificial Jewelry (Locket Set) (Average Quality), Shampoo Sun Silk/Pantene 90 Ml Bottle, Suitcase	Hair Cut Charges For Men, Hair Removing Cream (Eu-Cream) 30Ml Tube, Toilet Soap Lifebuoy 115 Gm, Disposable Razor Gillette Blue Ii, Electric Hair Straightener (Philips), Blade Treet Ordinary (10 No. Packet), Shaving Cream (Touchee Large/Admiral), Shaving Charges,

Table A17: Distribution of Price Changes (YoY) - Selected Rural CPI Items: April 2022

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Food & Non-Alcoholic Beverages	Ginger (Adrak), Pulse Moong (Washed), Chilies Powder Loose, Potatoes, Eggs Farm, Sugar Refined, Guava (Amrood) (Average Quality), Cucumber (Kheera), Coriander Seed Powder Loose,	Salt Powder Loose, Jam-E-Shireen Standard Size (800 ML), Peas (Matar),	Pulse Mash (Washed), Chicken Farm Broiler (Live), Gur (Average Quality), Powdered Milk Nido 390 Gm Polybag, Ice Cream Walls Cup (Large Size), Carrot (Gajar), Cold Drink (Pepsi/Coca-Cola) 1.5 Liter Bottle, Fruit Juice Small Packet 250	Almonds (Badam) Kaghazi With Shell (Average Quality), Pulse Gram, Fish Fresh, Curd, Milk Fresh (Un-Boiled), Turmeric Powder Loose, Tea Lipton Yellow Label 190 Gm Packet, Groundnuts (Moong Phali) With Shell, Rusk (Papay) (Average Quality), Rice Basmati Broken (Average
Alcoholic Beverages & Tobacco		Cigarettes Gold Leaf 20'S Packet, Cigarettes Capstan 20'S Packet,	Chewing Tobacco (Niswar),	Pan Prepared (Sweet With Beetle Nuts), Tobacco Hukka Twisted,
Clothing & Footwear			Footware Gents Local (Average Quality), Tailoring Charges Simple Suit (Female), Shirting (Average Quality), School Uniform Girls (Kameez & Shalwar) 24"/26", Dopatta Georgette (Average Quality), Footware Children Local (Average Quality),	Chaddar (Wash-N-Wear) (2X2.5 Meter), Footware Ladies Local (Average Quality), Lawn Printed (Average Quality), Georgette (Average Quality), Full Pant Boy Length 24"/26", Tailoring Charges Awami Suit (Male), School Uniform Boys (Pant & Shirt) 24"/26", Long Cloth, Linen, Ladies (Average Quality), Pullover Gents (Average Quality), Shirt Boy Length 24"/26", Shoe
Housing, Water, Elec, Gas & other Fuels	Electricity Charges 51-100 Units, Electricity Charges Upto 50 Units, Electricity Charges 101-300 Units, Electricity Charges Combined, Electricity Charges 301-1000 Units,	Water Charges Per House, Electricity Charges Above 1000 Units,	House Rent Combined, Bricks New 1St Class, Painter Wage Rate, Mason Wage Rate,	Electrician Charges, Plumber Wage Rate, Carpenter Wage Rate, Charges For Refuse/Waste Collection, Sand (Black Pit), Bajri, Unskilled Labor Wage Rate, Firewood Whole, Coal, Kerosene Oil, Cement (Local) 50 Kg Bag, Lpg 11.67 Kg
Furnishing & Household Equip. Maintenance etc		Cleanser Powder Vim 900 Gm Polybag,	Boot Polish Cherry/Kiwi 42 ML, Refrigerator Dawlance/Pel 10 Cubic Feet Double Door, Finis 400 ML Bottle, Water Cooler 9/10 Litre Plastic Super Quality, Water Set (Omroc) 6 Glass,	Energy Saver Philips 14 Watt, Robin Blue Liquid 75 ML Bottle, Towel Medium Size (2' X 3'), Bucket (Balti) Plastic Medium Size, Blanket Single (Sn), Sewing Machine (Sn) Without Cover, Tube Light Philips 40 Watt, Washing Machine With Spinner
Health		Hydryllin Syrup 120 ML Bottle, Blood Test (Cp) Charges, Cost Of Surgery (C-Section),	Daonil Tablets 5 Mg, Dettol Medium Bottle, X-Ray (Chest) Charges, Dental Surgeon Fee Per Visit, Amoxil Capsule 250 Mg, Johar Joshanda Instant (Sachet)	Physiotherapist Fee Per Visit, Doctor (Mbbs) Clinic Fee, Panadol Tablets Plain,
Transport	Car Tax 800 Cc To 1500 Cc, Car Suzuki 800 Cc Without Ac,		Motorcycle Service Charges,	Tire Cycle, Tire Motorcycle Cd 70 (Back Wheel), Chingchi Rickshaw Charges, Minimum, Train Fare Economy Per Person, Mobil Oil (Havoline 20W-50), Motorcycle Honda Cd 70, Bicycle, Tire Car Mehran Tubeless (General), Hi-Speed Diesel, Bus
Communication	Postal Registration Charges, Mobile Call Charges, Telephone Call Charges,	Internet Charges (Dsl) 1 Mb (Unlimited), Mobile Set With Rear Camera And Without Touch Screen,		
Recreation & Culture	Newspaper Daily Jang,	Urdu Books Class Ix And X (Text Book Board), Led Sony/Samsung 32" Colored, English Books Class Xi Complete Set,	Cable Charges, English Books Class Ix And X, Personal Computer With Led Monitor (17") Dell/Hp/Acer Core I5, English Books Class Vi,	Exercise Book (With Lines) 80 To 100 Pages, Lead Pencil Goldfish, Ballpoint Pen Local, Pets Feed, Urdu Books Class V (Text Book Board),
Education		Private School Fee English Medium Average Standard (Class Vi), Private School Fee English Medium Average Standard (Class I),	Private School Fee English Medium Average Standard (Class V), Vocational Training Basic Computer Short Course Fee (3 Months), Coaching Fee For Class Ix/X Science Group,	
Restaurant & Hotels	Government Hostel Accommodation Fee For Intermediate College Per Student, Private Hostel Accommodation Fee For Intermediate College Per Student,		Pizza Chicken Medium Size (Average Quality), Chicken Roast (Full) (Average Quality),	Chicken Biryani Full/Double, Burger With Shami Kabab (Average Quality), Marriage Hall Service Charges With Food (Average Meal), Marriage Hall Charges With Furniture, Cooked Beef At Average Hotel, Tea Prepared Ordinary, Seekh Kabab (Beef)
Miscellaneous		Toilet Soap Lux 75 Gm, Blade Treet Ordinary (10 No. Packet),	Purse Ladies Medium Size (Average Quality), Shaving Cream (Touchme Large/Admiral), Tooth Paste Colgate 75 Gm, Suitcase Ragzine (24"X16"X6") (Average Quality), Disposable Razor Gillette Blue Ii,	Artificial Jewelry (Locket Set) (Average Quality), Talcum Powder Viceroy/Black Cat, Shampoo Sun Silk/Pantene 90 ML Bottle, Hair Removing Cream (Eu-Cream) 30ML Tube, Tooth Brush (Shield), Hair Color (Kala Kola), Trunk Medium Size (Average Quality), Shavine Charges, Hair

Table A18: Distribution of Price Changes (YoY) - WPI Items: April 2022

Groups	Decrease or no change	Subdued increase (Greater than 0% but less than 5%)	Moderate increase (5% but less than 10%)	Double digit increase (10% or more)
Agriculture Forestry & Fisher Product	Stimulant & Spice Crops, Edible Roots / Potatoes, Eggs, Maize,	Fish Live Fresh or Chilled, Raw Animal Materials / Wool, Poultry, Fuel Wood in Logs, Sorghum / Jowar, Cotton Seeds, Dry Fruits,	Hides, Skins & Fur Skins, Raw, Rice, Millet / Bajra,	Raw Milk from Bovine Animals, Unmanufactured Tobacco, Sugar Crops, Wheat, Pulses, Fresh Fruits, Vegetables, Other Oil Seeds, Fiber Crops,
Ores/Minerals, Elec., Gas & Water		Natural Gas Liquefied,		Salt & Pure Sodium Chloride, Electrical Energy, Coal not Agglomerated,
Food, Beverages, Tobacco, Textile, Apparel and Leather Product	Spices, Sugar Refined, Other Food Products, Nylon Yarn, Footwears,	Blankets, Sugar Confectionary, Chocolate, Readymade Garments, Fruit Juices, Dried Fruits & Nuts, Beverages,	Other Leather N.E.C, Vegetables & Fruit Juice, Woolen Carpets, Milk & Cream in Solid Form, Processed Liquid Milk, Synthetic Carpets, Ice Cream, Bed Sheets, Dairy Products N.E.C, Towels, Cotton Fabrics, Hosiery Products,	Mineral Water, Blended Yarn, Woven Fabrics, Quilts, Oil Cakes, Other Cereal Flour, Other Fabrics, Coffee & Tea, Tobacco Products, Leather Without Hair, Wheat Flour, Cotton Yarn, Silk & Reyon Fabrics,
Other Transportable Goods except Metal Products, Machinery, and Equipments	Printing Paper, Hard Board, Dyeing Material, Insecticides,	Glass sheets, Pesticides, Matches,	Other Glass Articles, Plastic Products, Timber, Ceramics & Sanitary Fixture, Bricks, Blocks & Tiles,	Paints & Varnishes, Medicines, Mobil Oil, Soaps & Detergents, Auto Tyres, Bed Foam, Cement, Motor Spirit, Diesel Oil, Fertilizers, Kerosene Oil, Chemicals, Furnace Oil,
Metal Product, Machinery & Equipments	Vacuum Pumps,	Electric Wires,	Steel Products, Radio & Television, Fridge, WashM, SewM, Fans, Iron, Engines & Motors,	Bicycles, Lighting Equipments, Motor Vehicles, Motorcycles, Lathe Machines, Pipe Fittings, Tractors, Air Conditioners, Steel Bar & Sheets, Concrete Mixture, Cultivators, Chuff Cutter,

Table A19: International Commodity Prices/Indices				
Commodity/Indices	Jun-21	Apr-21	Mar-22	Apr-22
Energy				
Crude Oil (US\$ per barrel)*	71.8	63.0	112.4	103.4
Energy Index (2010 = 100)	93.9	80.8	163.2	153.3
Food				
Rice (\$/MT)	466.0	495.0	422.0	431.0
Wheat (\$/MT)##	263.5	281.4	533.1	672.5
Sugar (US cent/ pound)^	17.4	16.2	19.0	19.7
Palm Oil (\$/MT)	1,004.4	1,078.1	1,777.0	1,682.7
Soybean Oil (\$/MT)	1,518.2	1,386.4	1,956.9	1,947.5
Non-Food Non-Energy				
Cotton Outlook 'A' Index #^	94.5	90.7	141.1	155.3
Metal Price Index (2010 = 100)	119.0	113.5	149.9	146.1
Copper (\$/MT)	9,631.5	9,324.8	10,230.9	10,161.4
Aluminum (\$/MT)	2,446.7	2,319.4	3,498.4	3,244.4
Iron Ore (\$ cents/dry MT)	214.4	179.8	152.1	151.3
Tin (\$/MT)	32,502.6	28,328.4	43,949.7	42,991.1
Nickel (\$/MT)	17,979.6	16,521.3	33,924.2	33,132.7
Zinc (\$/MT)	2,951.9	2,829.0	3,962.2	4,360.4
Lead (\$/MT)	2,191.0	2,011.9	2,344.8	2,380.4
Uranium (\$/MT)@	32.3	28.9	58.2	53.0
DAP (\$/MT)	604.8	543.4	938.1	954.0
Urea (\$/MT)	393.3	328.1	872.5	925.0

Source: World Bank for all variables / indices except Uranium which is taken from Cameco (World Largest Uranium Producer)

@ Data has been taken from Cameco website, as it is not available in World Bank dataset.

^ The measurement unit for sugar and Cotton is US cent/ pound in IMF data source, whereas it is US dollar / kg in World bank dataset. The result of two datasets can be reconciled using conversion formula: 1 US \$ / kilogram = \$/MT = US\$ per metric tonne.

* Crude Oil (Petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai fateh

Middling 1-3/32 inch staple, Liverpool Index "A", average of the cheapest Cts/lb five of fourteen styles, CIF Liverpool (Cotton Outlook, Liverpool). From April 1968 to June 1981 strict middling 1-1/16 inch staple. Prior to 1968, Mexican 1-1/16.2/

Wheat, US HRW (Hard Red Winter) is not being reported by World Bank. Hence, it has been replaced with Wheat, US SRW (Soft Red Winter).

DAP: Diammonium Phosphate

Table A20: National CPI Data Series Original and Seasonally Adjusted

Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	107.15	114.29	123.86	135.38	146.76
Aug	107.31	113.93	125.89	136.23	147.61
Sep	108.05	113.90	126.86	138.32	150.74
Oct	109.22	116.32	129.16	140.67	153.61
Nov	109.95	116.18	130.90	141.83	158.18
Dec	109.92	115.82	130.45	140.86	158.16
Jan	110.01	116.12	133.04	140.56	158.78
Feb	109.72	117.12	131.64	143.09	160.61
Mar	109.96	119.46	131.69	143.61	161.88
Apr	111.15	120.33	130.59	145.09	164.50
May	111.65	121.05	131.01	145.24	
Jun	112.58	121.63	132.08	144.82	
Seasonally Adjusted Series					
Jul	106.99	114.18	123.82	135.40	146.84
Aug	107.19	113.90	125.95	136.39	147.87
Sep	107.67	113.57	126.54	138.01	150.45
Oct	108.23	115.26	127.98	139.37	152.17
Nov	108.81	114.90	129.37	140.10	156.19
Dec	109.83	115.65	130.19	140.50	157.71
Jan	110.24	116.39	133.35	140.90	159.18
Feb	110.40	117.76	132.26	143.69	161.20
Mar	110.56	120.06	132.29	144.21	162.52
Apr	111.16	120.34	130.61	145.11	164.51
May	112.27	121.72	131.73	146.04	
Jun	113.35	122.52	133.11	146.05	

Table A21: Urban CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	107.71	114.94	124.95	134.73	146.41
Aug	107.93	114.58	126.77	135.82	147.12
Sep	108.38	114.49	127.72	137.53	150.08
Oct	109.34	117.04	129.75	139.27	152.59
Nov	110.03	116.94	131.05	140.16	156.96
Dec	110.08	116.57	130.57	139.67	157.46
Jan	110.28	117.07	132.77	139.45	157.56
Feb	110.12	118.08	131.32	142.61	159.03
Mar	110.43	120.29	131.49	142.99	160.07
Apr	111.94	121.29	130.60	144.91	162.63
May	112.53	122.11	130.99	145.19	
Jun	113.34	122.52	131.89	144.54	
Seasonally Adjusted Series					
Jul	107.39	114.66	124.72	134.55	146.27
Aug	107.67	114.38	126.65	135.77	147.14
Sep	108.04	114.18	127.42	137.25	149.81
Oct	108.53	116.19	128.80	138.25	151.47
Nov	109.14	115.94	129.86	138.84	155.43
Dec	110.19	116.60	130.54	139.56	157.27
Jan	110.57	117.41	133.18	139.89	158.06
Feb	110.83	118.75	131.97	143.24	159.66
Mar	111.09	120.95	132.15	143.64	160.75
Apr	111.79	121.12	130.43	144.71	162.39
May	112.91	122.52	131.42	145.66	
Jun	113.97	123.26	132.76	145.60	

Table A22: Rural CPI Data Series Original and Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	106.30	113.30	122.22	136.36	147.28
Aug	106.37	112.96	124.56	136.84	148.34
Sep	107.54	113.01	125.55	139.51	151.74
Oct	109.05	115.23	128.28	142.79	155.15
Nov	109.83	115.03	130.67	144.34	160.03
Dec	109.68	114.70	130.28	142.65	159.21
Jan	109.60	114.68	133.44	142.23	160.62
Feb	109.11	115.68	132.13	143.82	162.99
Mar	109.25	118.21	132.00	144.55	164.62
Apr	109.95	118.89	130.58	145.37	167.31
May	110.33	119.45	131.03	145.32	
Jun	111.44	120.29	132.36	145.24	
Seasonally Adjusted Series					
Jul	106.38	113.45	122.46	136.69	147.69
Aug	106.45	113.16	124.91	137.34	148.98
Sep	107.13	112.64	125.20	139.17	151.41
Oct	107.77	113.87	126.74	141.05	153.24
Nov	108.31	113.34	128.64	142.00	157.34
Dec	109.28	114.20	129.66	141.92	158.36
Jan	109.74	114.84	133.61	142.44	160.86
Feb	109.75	116.26	132.71	144.36	163.52
Mar	109.76	118.71	132.51	145.06	165.18
Apr	110.21	119.16	130.88	145.71	167.69
May	111.30	120.51	132.20	146.61	
Jun	112.41	121.40	133.65	146.74	

Table A23: National CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.15	100.09	100.03	99.98	99.95	100.04
Aug	100.11	100.03	99.95	99.88	99.82	99.96
Sep	100.34	100.29	100.25	100.22	100.20	100.26
Oct	100.92	100.92	100.92	100.94	100.94	100.93
Nov	101.05	101.11	101.18	101.24	101.27	101.17
Dec	100.08	100.15	100.20	100.25	100.29	100.20
Jan	99.79	99.77	99.77	99.76	99.75	99.77
Feb	99.38	99.46	99.53	99.58	99.63	99.52
Mar	99.46	99.50	99.55	99.58	99.61	99.54
Apr	99.99	100.00	99.99	99.99	100.00	99.99
May	99.45	99.45	99.45	99.45		99.45
Jun	99.33	99.28	99.22	99.16		99.25

Table A24: Urban CPI Monthly & Average Seasonal Factors						
Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	100.30	100.24	100.18	100.13	100.09	100.19
Aug	100.24	100.17	100.10	100.04	99.99	100.11
Sep	100.32	100.27	100.23	100.20	100.18	100.24
Oct	100.74	100.73	100.74	100.74	100.74	100.74
Nov	100.82	100.87	100.92	100.95	100.98	100.91
Dec	99.90	99.97	100.03	100.08	100.12	100.02
Jan	99.74	99.71	99.69	99.69	99.68	99.70
Feb	99.36	99.44	99.51	99.56	99.60	99.49
Mar	99.41	99.45	99.50	99.54	99.58	99.50
Apr	100.13	100.14	100.13	100.14	100.15	100.14
May	99.66	99.67	99.67	99.68		99.67
Jun	99.45	99.40	99.34	99.27		99.37

Table A25: Rural CPI Monthly & Average Seasonal Factors

Period	FY18	FY19	FY20	FY21	FY22	Average
Jul	99.93	99.86	99.81	99.76	99.72	99.82
Aug	99.92	99.82	99.72	99.64	99.57	99.73
Sep	100.38	100.33	100.28	100.24	100.22	100.29
Oct	101.18	101.19	101.21	101.23	101.24	101.21
Nov	101.41	101.49	101.58	101.65	101.71	101.57
Dec	100.37	100.44	100.48	100.51	100.54	100.47
Jan	99.87	99.86	99.86	99.85	99.85	99.86
Feb	99.42	99.50	99.57	99.63	99.68	99.56
Mar	99.54	99.58	99.62	99.65	99.66	99.61
Apr	99.77	99.78	99.77	99.77	99.77	99.77
May	99.13	99.12	99.11	99.12		99.12
Jun	99.14	99.09	99.04	98.98		99.06

Table A26: National CPI (Month-on-Month) Original & Seasonally Adjusted					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.57	1.51	1.83	2.50	1.34
Aug	0.15	-0.31	1.64	0.63	0.58
Sep	0.69	-0.03	0.77	1.53	2.12
Oct	1.09	2.12	1.81	1.70	1.90
Nov	0.66	-0.12	1.35	0.82	2.98
Dec	-0.03	-0.31	-0.34	-0.68	-0.01
Jan	0.08	0.26	1.99	-0.21	0.39
Feb	-0.26	0.86	-1.05	1.80	1.15
Mar	0.22	2.00	0.04	0.36	0.79
Apr	1.08	0.73	-0.84	1.03	1.62
May	0.46	0.60	0.32	0.10	
Jun	0.83	0.48	0.82	-0.29	
Seasonally Adjusted Series					
Jul	-0.21	0.74	1.06	1.72	0.54
Aug	0.19	-0.25	1.73	0.73	0.70
Sep	0.45	-0.29	0.46	1.19	1.74
Oct	0.52	1.49	1.14	0.98	1.15
Nov	0.53	-0.31	1.09	0.52	2.64
Dec	0.94	0.65	0.63	0.29	0.97
Jan	0.37	0.64	2.43	0.29	0.93
Feb	0.14	1.18	-0.82	1.98	1.27
Mar	0.15	1.95	0.02	0.36	0.82
Apr	0.55	0.23	-1.27	0.62	1.22
May	0.99	1.15	0.86	0.64	
Jun	0.96	0.66	1.05	0.01	

Table A27: Urban CPI (Month-on-Month) Original & Seasonally Adjusted Series					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.59	1.41	1.98	2.15	1.29
Aug	0.20	-0.31	1.46	0.81	0.48
Sep	0.42	-0.08	0.75	1.26	2.01
Oct	0.89	2.23	1.59	1.27	1.67
Nov	0.63	-0.09	1.00	0.64	2.86
Dec	0.05	-0.32	-0.37	-0.35	0.32
Jan	0.18	0.43	1.68	-0.16	0.06
Feb	-0.15	0.86	-1.09	2.27	0.93
Mar	0.28	1.87	0.13	0.27	0.65
Apr	1.37	0.83	-0.68	1.34	1.60
May	0.53	0.68	0.30	0.19	
Jun	0.72	0.34	0.69	-0.45	
Seasonally Adjusted Series					
Jul	-0.22	0.61	1.19	1.35	0.47
Aug	0.27	-0.25	1.54	0.90	0.59
Sep	0.34	-0.18	0.61	1.09	1.82
Oct	0.46	1.76	1.08	0.73	1.11
Nov	0.56	-0.22	0.82	0.43	2.62
Dec	0.97	0.57	0.52	0.52	1.19
Jan	0.34	0.70	2.02	0.23	0.50
Feb	0.23	1.14	-0.91	2.40	1.01
Mar	0.24	1.86	0.13	0.28	0.68
Apr	0.63	0.14	-1.30	0.74	1.02
May	1.00	1.15	0.76	0.66	
Jun	0.94	0.60	1.02	-0.04	

Table A28: Rural CPI (Month-on-Month) Original & Seasonally Adjusted Series					
Original Series					
Period	FY18	FY19	FY20	FY21	FY22
Jul	0.54	1.67	1.60	3.02	1.40
Aug	0.07	-0.30	1.91	0.35	0.72
Sep	1.10	0.04	0.79	1.95	2.29
Oct	1.40	1.96	2.17	2.35	2.25
Nov	0.72	-0.17	1.86	1.09	3.15
Dec	-0.14	-0.29	-0.30	-1.17	-0.51
Jan	-0.07	-0.02	2.43	-0.29	0.89
Feb	-0.45	0.87	-0.98	1.12	1.48
Mar	0.13	2.19	-0.10	0.51	1.00
Apr	0.64	0.58	-1.08	0.57	1.63
May	0.35	0.47	0.34	-0.03	
Jun	1.01	0.70	1.02	-0.06	
Seasonally Adjusted Series					
Jul	-0.20	0.93	0.87	2.28	0.65
Aug	0.07	-0.25	2.00	0.47	0.87
Sep	0.63	-0.46	0.23	1.33	1.63
Oct	0.60	1.09	1.23	1.35	1.21
Nov	0.49	-0.47	1.50	0.67	2.67
Dec	0.90	0.76	0.79	-0.05	0.65
Jan	0.42	0.56	3.05	0.36	1.58
Feb	0.01	1.24	-0.68	1.35	1.65
Mar	0.01	2.10	-0.15	0.49	1.02
Apr	0.41	0.37	-1.23	0.44	1.52
May	0.99	1.14	1.01	0.62	
Jun	1.00	0.74	1.10	0.08	

List of Figures

Figure A1: National CPI Non-food Inflation (YoY, 12MMA, MoM in percent)



Figure A2: Urban CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

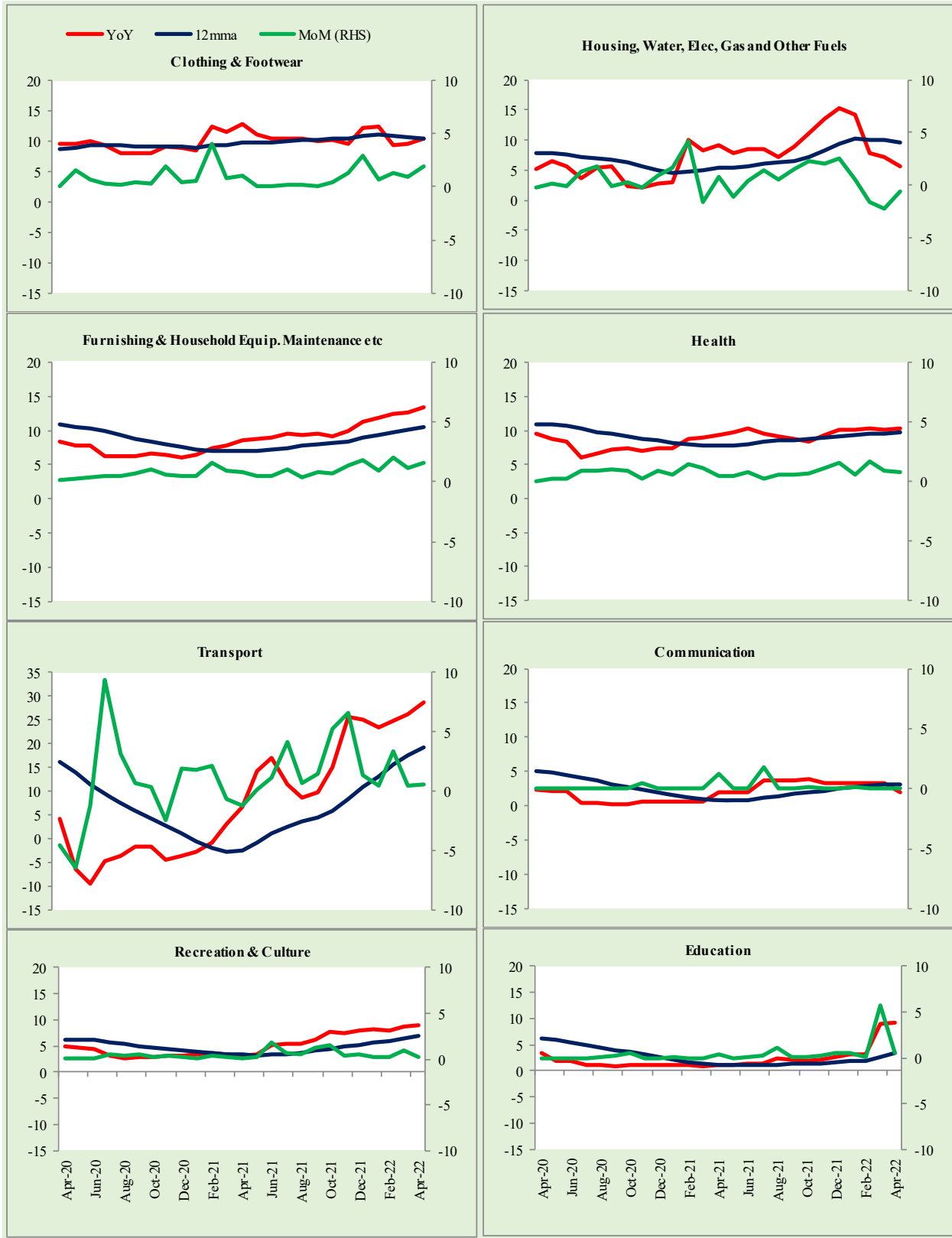
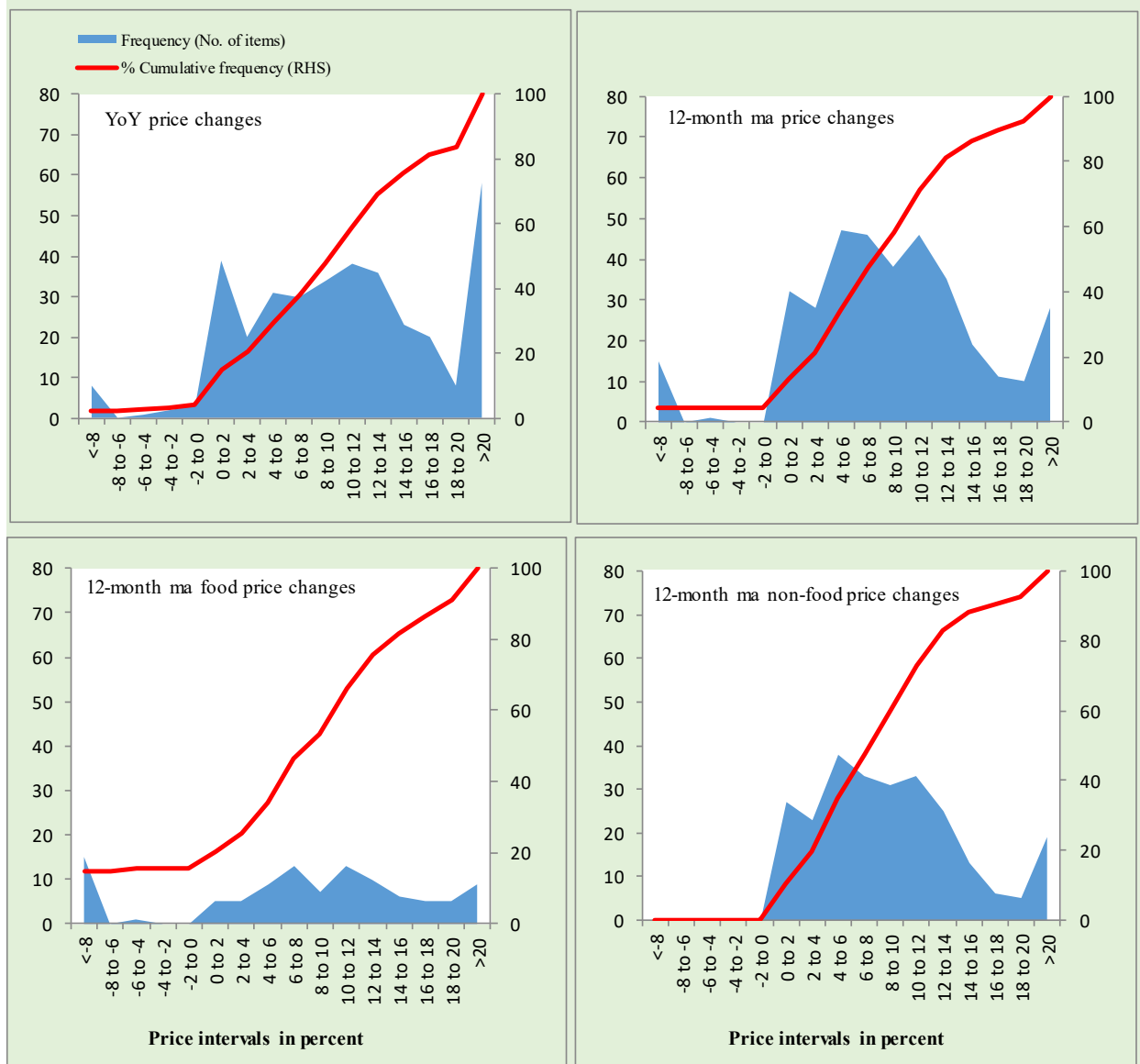


Figure A3: Rural CPI Non-food Inflation (YoY, 12MMA, MoM in percent)

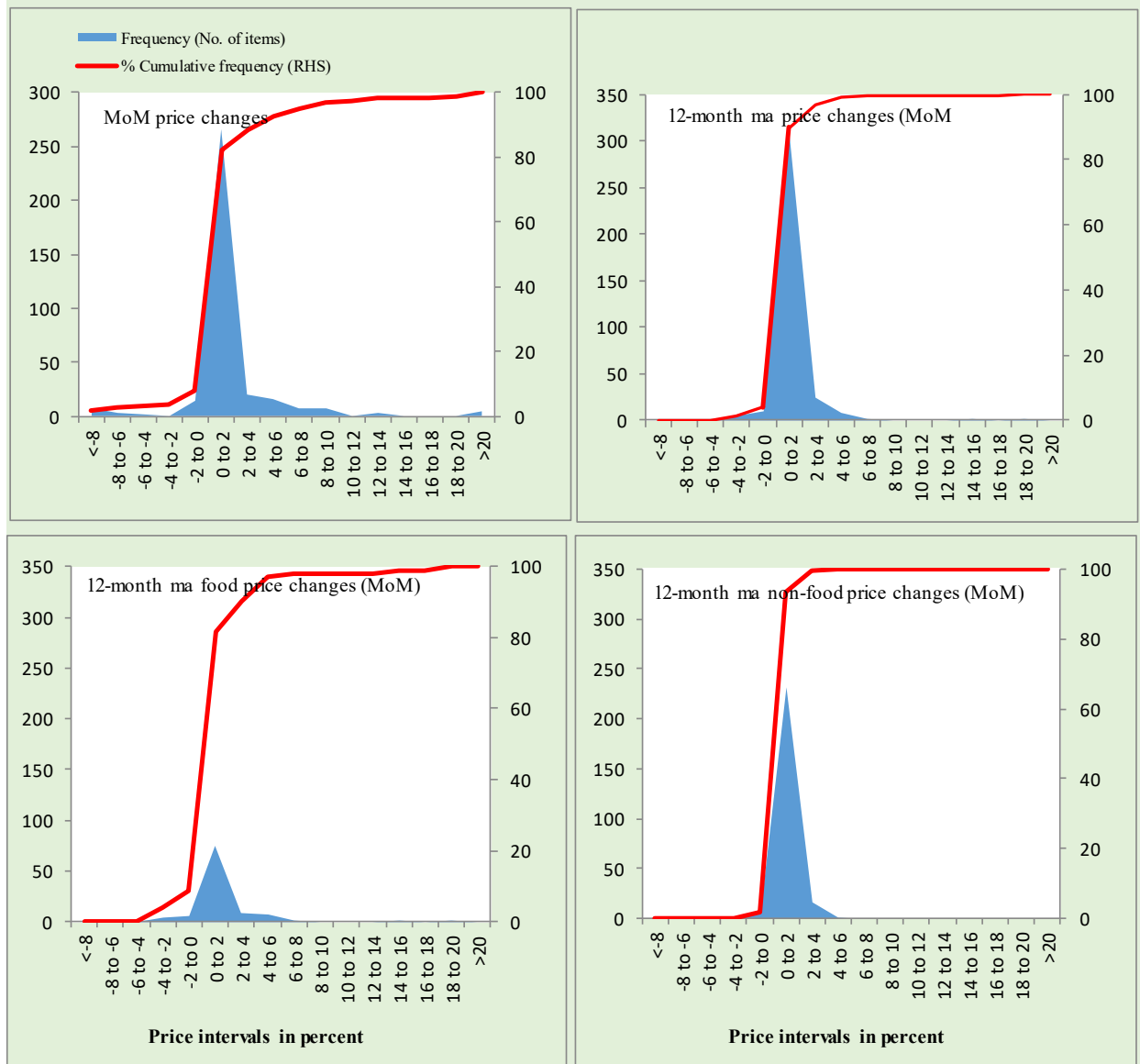


Figure A4: Frequency Distribution of Price Changes of Urban CPI Items (YoY)



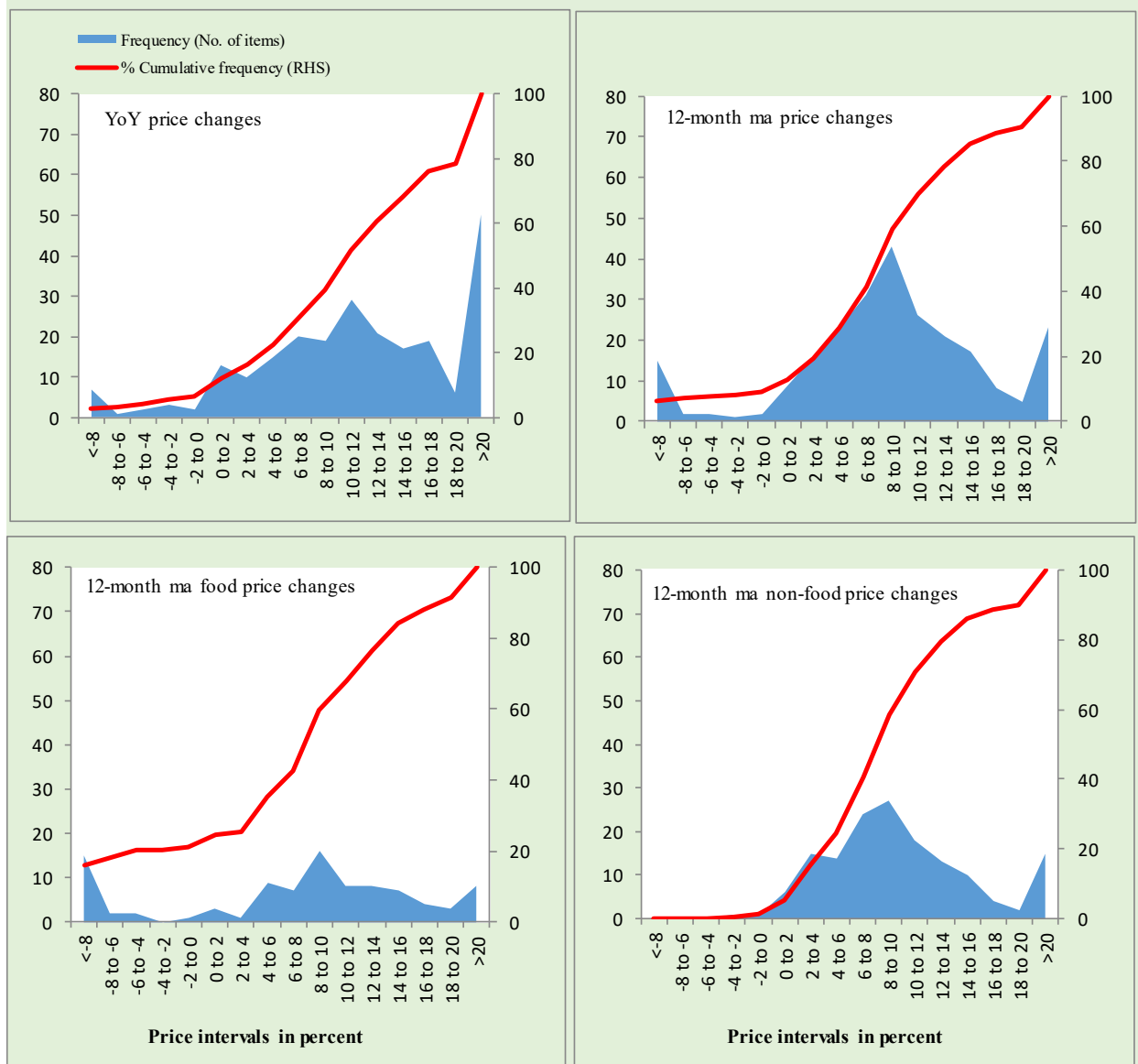
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

Figure A5: Frequency Distribution of Price Changes of Rural CPI Items (YoY)



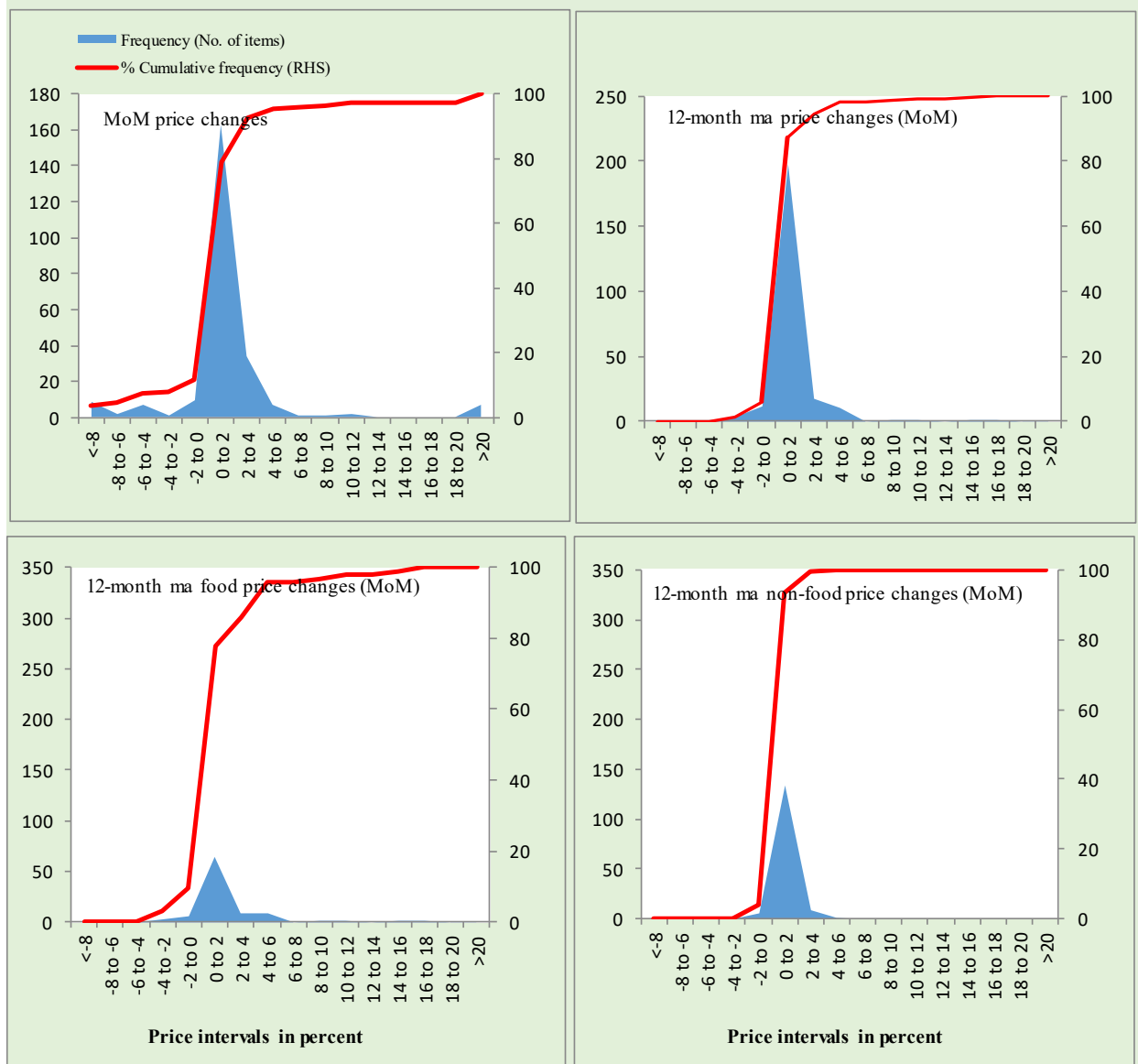
Total Items in CPI Basket (356), Food Items (103) and non-Food Items (253).

Figure A6: Frequency Distribution of Price Changes of Urban CPI Items (MoM)



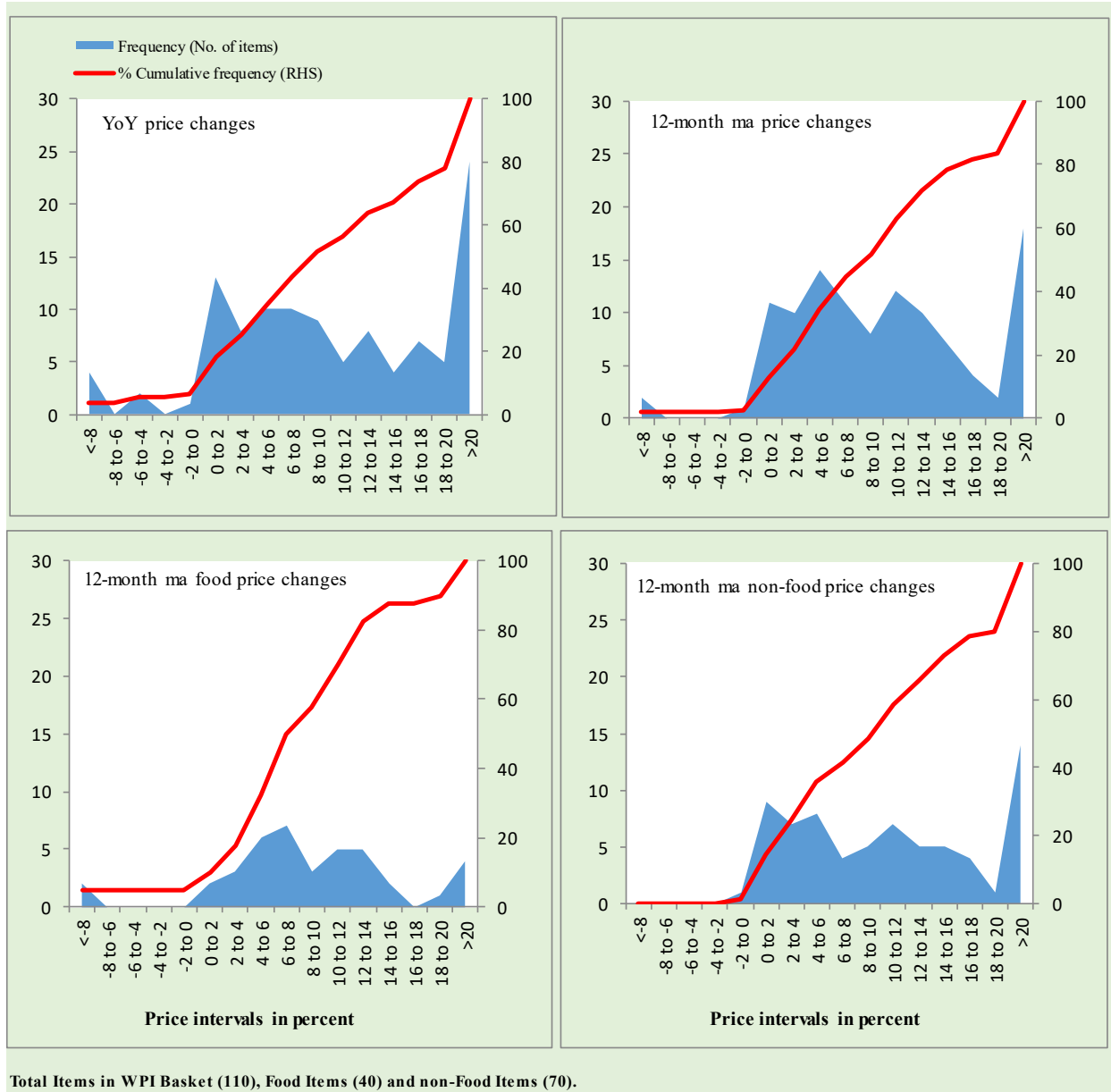
Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

Figure A7: Frequency Distribution of Price Changes of Rural CPI Items (MoM)



Total Items in CPI Basket (244), Food Items (94) and non-Food Items (150).

Figure A8: Frequency Distribution of Price Changes of WPI Commodities (YoY)



Technical Notes, Definitions and Methodologies

Technical Notes

1. All the three measures of inflation, viz. CPI (National, Urban and Rural), WPI and SPI are computed by the following Laspeyres Index formula:

$$I_t = \sum_j w_0^j \left(\frac{P_t^j}{P_0^j} \right)$$

Where I_t is price index, w_0^j is weight of commodity j in the overall basket, P_t^j is price of commodity j in period t and P_0^j is its price in the base year.

2. Base year for all the indices is the year 2015-16.
3. CPI baskets for urban and rural areas contains 356 and 244 consumers' items respectively; WPI basket contains 419 items; SPI contains 51 items.
4. YoY inflation is the percent change of an index in a given month over the index in the same month of the last year. It is computed as follows:

$$\pi_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

5. Period average inflation is the percent change of the average index during the period from July to the given month of a fiscal year over the average index during the corresponding period of the last year. It is computed as follows:

$$\bar{\pi}_t = \left(\frac{\sum_{i=0}^{t-v} I_{t-i}}{\sum_{i=0}^{t-12-v} I_{t-12-i}} - 1 \right) \times 100$$

Where v is the serial number of the month of July of current fiscal year in a given time series.

6. Monthly inflation is the percent change of an index in a given month over the index in the preceding month. It is computed as follows:

$$\pi_t = \left(\frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

7. 12-month moving average inflation (Long-run trend inflation) is the percent change of 12-month moving average of a price index; it is computed as follows:

$$\tilde{\pi}_t = \left(\frac{\sum_{i=0}^{11} I_{t-i}}{\sum_{i=0}^{11} I_{t-12-i}} - 1 \right) \times 100$$

8. Core Inflation is defined as the persistent component of measured inflation that excludes volatile and controlled prices. It reflects the normal supply and demand conditions in the economy. Core inflation is computed by the following two methods i.e. NFNE inflation and trimmed inflation:

- a) Non-food, Non-energy inflation (NFNE inflation); it is computed by excluding food group and energy items (kerosene oil, petrol, diesel, CNG, electricity and natural gas) from the CPI basket.
- b) 20% trimmed-mean inflation; it is computed through the following steps:
- i. All CPI items are arranged in ascending order according to YoY/12-month moving average/monthly/period average changes in their price indices in a given month.
 - ii. 20 percent of the items showing extreme changes are excluded with 10 percent of the items at the top of the list (corresponding to cumulative weight of 90% or more) and 10 percent of the items at the bottom of the list (corresponding to cumulative weight of 10 percent or less).
 - iii. The weighted mean of the changes in price indices of the rest of the items is core inflation.
9. Weighted contribution of different items (or sub-groups) to total inflation is worked out as below: Let the overall index (I_t) is the weighted average of price indices of individual items or sub-groups (I_{it}), i.e.

$$I_t = \sum_i w_i \cdot I_{it}$$

The weighted contribution of a single item (or a sub-group) to overall inflation is defined as below:

$$C_{it} = \alpha_{it-12} \cdot w_i \cdot \left(\frac{\pi_{it}}{\pi_t} \right)$$

Where C_{it} : Contribution of i^{th} item to the overall inflation

$$\alpha_{it-12} = \frac{I_{it-12}}{I_{t-12}}; \text{ i.e. ratio of item's index to overall index in the}$$

reference month

w_i : Weights of i^{th} item

π_{it} : Inflation of i^{th} item

π_t : Overall inflation

10. Annualized rate of inflation (based on a month-on-month rate π) is computed as follows

$$\text{Annualized } \pi = \left(\left(1 + \frac{\pi}{100} \right)^{12} - 1 \right) \times 100$$

We constructed an index to measure the spread of inflation in the 356 and 244 items of CPI urban and rural baskets respectively. It is based on month-on-month (MoM) change in the prices of these items and can be obtained by estimating what is known as an ‘inflation diffusion index’ (IDI) as below:

$$IDI = \frac{\text{No. of items with positive MoM change in price} - \text{No. of items with negative MoM change in price}}{\text{No. of items for which prices are reported}} * 100$$

Thus, it is the difference between the share of items with increasing prices (i.e. depicting inflation) and the share of items with falling prices (i.e. depicting deflation) in CPI amongst the items for which prices have altered or remained constant¹.

Based upon item level prices data from July 2001 to April 2011, inflation diffusion indices for overall (general) CPI basket and for all groups in CPI basket (except House Rent Index being single item) were computed. A simple analysis² suggests that IDI was a leading indicator for Pakistan’s YoY inflation.

¹ We do not observe the prices of certain items (like the seasonal items) during certain periods of time. To calculate the inflation diffusion index we consider the items for which prices have been reported (irrespective of changed or not) during the month under review.

² Formal test shows one way ‘Granger’ causality from IDI to YoY inflation.